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The Journal of the Fire Protection Profession

OCTOBER 2, 1929

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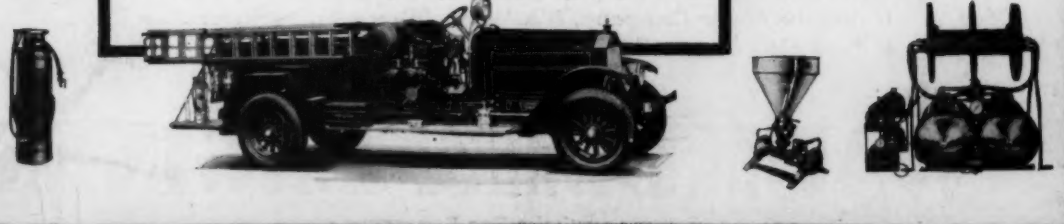

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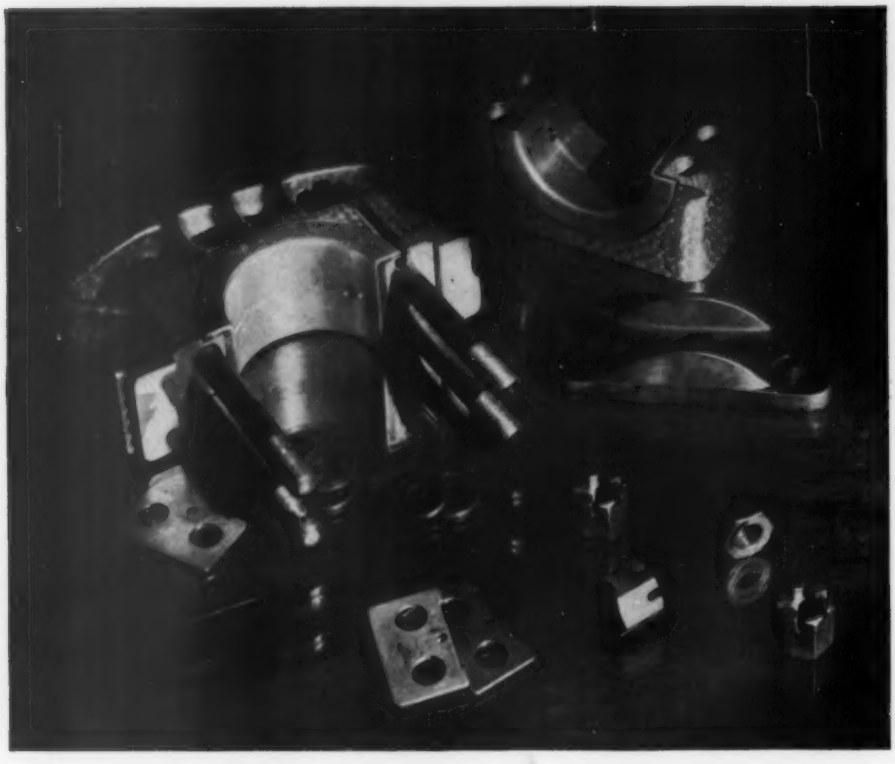

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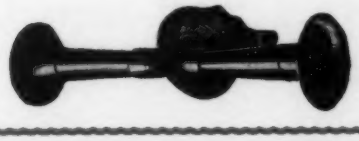

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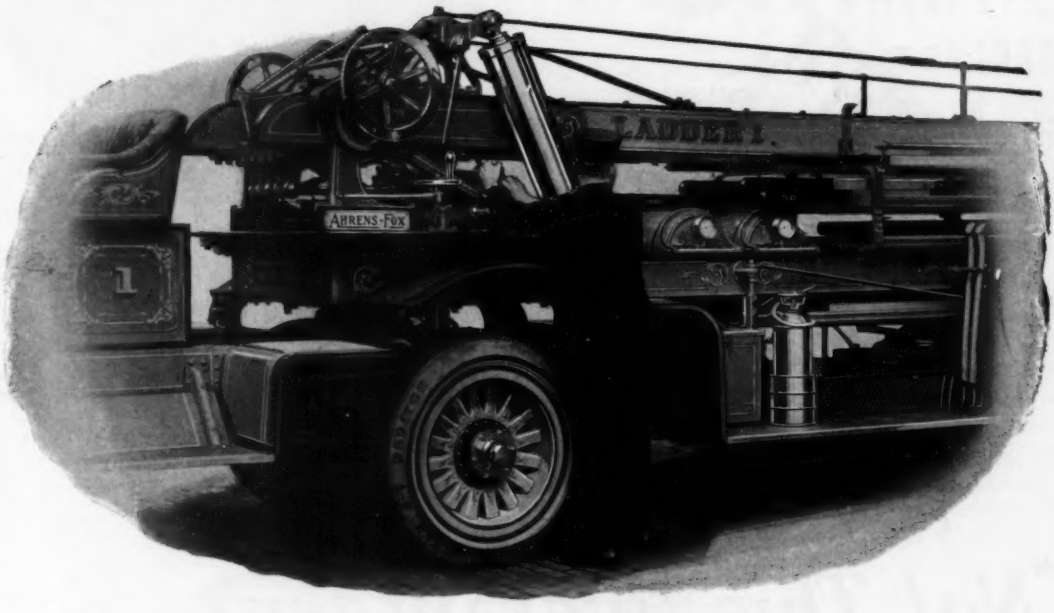

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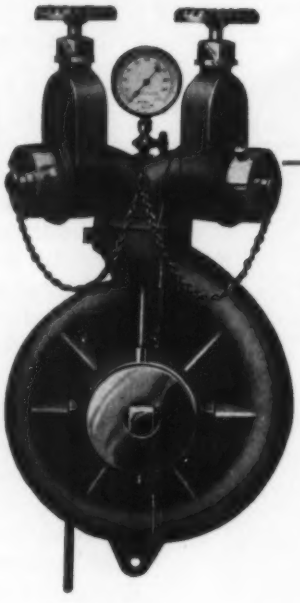

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The Journal of the Fire Protection Profession

VOLUME LXXXII OCTOBER 2, 1929 NUMBER 20

Flammable Liquids—Their Protection

Problems Involved in Regulating the Handling, Sale and Storage of Such Dangerous Materials—Suggestions as to Ordinance for Purpose

By H. S. WALKER, Engineer, National Fire Protection Association

THE use of all varieties of flammable liquids is increasing as time goes on, and the menace from careless or ignorant use of these dangerous but invaluable substances is consequently becoming a greater and greater problem for the Chief. The following suggestions will be found both timely and interesting:

In his book "Fires and Fire Fighters" published in 1913 Chief John Kenlon of New York wrote as follows:

"The advent of the motor car has not proved an unmixed blessing to the fire fighter and it is no exaggeration to say that the general adoption of motor traction has enormously increased the fire risk. Gasoline is an extremely dangerous liquid to handle, though that familiarity which breeds contempt has robbed it of its sinister significance.

"Of all careless persons, chauffeurs and garage employees may justly claim pre-eminence. In spite of printed regulations and orders prominently displayed they will smoke at every possible opportunity absolutely heedless of the fact that they would be just as well advised to smoke in a powder mill.

"And the owners are not much better. Unless compelled by municipal ordinances, they are sublimely indifferent to effective fire protection in their garages both relative to storage of flammable liquids and relative to structural factors."

The book goes on to speak of the use of flammable liquids in dry cleaning and other industrial processes and at the end of the chapter sums it all up in two brief sentences:

"It is an interesting commentary on the philosophy of life that those elements which are of the greatest general use to society are nearly always fraught with an irreducible minimum of risk, if applied without caution. Gasoline and other volatile flammable liquids have been termed "unseen enemies", but like many other potential adversaries, careful handling may transform them into useful servants and trusty friends."

These remarks are probably just as true now as they were in 1913 and the use of flammable liquids, not only gasoline, but other liquids used in industrial processes has increased by leaps and bounds. It is easy then to see that the interests of public safety call for a decidedly definite knowledge of the properties of these liquids, and proper and adequate ordinances and regulations for their storage and use.

Suggested Model Ordinance Regulating Use

To meet these conditions there has been developed by the National Fire Protection Association Committee on Flammable Liquids a suggested model ordinance regulating the use, handling, storage and sale of flammable liquids and products thereof. This ordinance was first published in 1913, but has twice been revised to keep it in accord with new developments and modern practice. We believe that the provisions of the ordinance represent the best thoughts available on the subject and it proposes to give you the necessary authority to control the hazards of all flammable liquids—not just one.

Before I go into a discussion of the details of the ordinance itself, let me just explain in a brief way the make-up of the technical committee which has been responsible for its development. The chairman is H. L. Miner, Manager, Safety and Fire Protection Division of the du Pont Company in Wilmington, Del., and the personnel of the committee is made up of representatives of oil refining industries, petroleum and oil burner associations, Bureau of Explosives, U. S. Bureau of Mines, Underwriters' Laboratories and fire insurance engineers.

Gasoline, Naphtha, Benzol and Similar Liquids

The first chapter of the model ordinance is, for the most part, given over to definitions. Flammable liquids have been divided into three classes according to flash point—those with a flash point below 25° Fahrenheit, those with a flash point between 25°

"IT is easy to see that the interests of public safety call for a decidely definite knowledge of the properties of these liquids and proper and adequate ordinances and regulations for their storage and use."

and 70°, and those with a flash point of over 70° and up to 190°. The flash point of a liquid is the lowest temperature at which it will give off ignitible vapors and for the purposes of concentrating enforcement on the more dangerous liquids we may, I think, for the purposes of this discussion consider Class I and II liquids together, thus considering those liquids having a flash point of less than 70° as highly flammable. This does not infer that liquids having a higher flash point will not burn, or that they will not give off ignitible vapors, nor does it mean that there is no danger involved in handling them. What it does mean is that Class I and II include the principal trouble-makers and those liquids which will flash at ordinary room temperatures or lower.

Liquids included in Class I and II are gasoline, naphtha, benzol, acetone, ether, alcohol and other liquids of similar characteristics. Kerosene, turpentine, and fuel oil are typical examples of Class III. The hazards attendant upon all burnable liquids vary in degree rather than in kind and those hazards belonging to gasoline, the worst offender of all, are in a greater or less degree applicable to any flammable liquid in inverse ratio to the flash point of the liquid. Naturally it follows that the lower the flash point, the greater the hazard.

General Requirements for Storage, Use and Handling

Chapter two of the model ordinance covers general requirements for the storage, use and handling of flammable liquids which are applicable to the regulation of the storage of petroleum products, the manufacture and storage of paint and varnish, garages, filling stations and dry cleaning establishments.

This chapter contains provisions prohibiting storage and handling in buildings where safety to life would be jeopardzed. It provides for proper construction of storage rooms and for adequate ventilation. It requires fire appliances and prohibits smoking and the use of open lights.

Spanish Style Architecture is Imperative in San Clemente

All buildings in San Clemente, Cal., a municipality between Los Angeles and San Diego, must be built in the Spanish style of architecture. That accounts for the design of the fire house illustrated. The building and fire fighting equipment was presented to the town by Ole Hanson, founder of the community.

FRANK H. WILLIAMS.

In connection with the prohibition of smoking in buildings where flammable liquids are present it is interesting to note that of 1,911 garage fires occurring in Massachusetts from 1919 to 1927, 318 or 16.6% were caused by careless smoking or careless use of matches.

Regulation of Storage Tanks

The third section embraces the regulation of storage tanks—their capacity, location and restriction to certain areas or districts. This subject has long been controversial in some of its details, but the provisions of this chapter as appearing in the present edition of the model ordinance are reasonably acceptable to the petroleum industry and any company would have no real reason to object to the enactment of such an ordinance.

To briefly indicate the trend in the practical application of these provisions let me cite several examples. The Richmond, Va., fire prevention code is slightly more restrictive on its limitations for underground storage, less restrictive in regard to the minimum distance of outside above-ground tanks to line of adjoining property which may be built upon, and in reference to minimum distances between above-ground tanks it agrees with the model ordinance. In the Wilmington, Del., code the requirements as to above-ground tanks are considerably more restrictive than the N. F. P. A. ordinance, while requirements for underground tanks are slightly more liberal. The rules and regulations of the State of Illinois are far more stringent as to minimum requirements for distances of above-ground tanks to property lines and are in agreement with the N. F. P. A. ordinance as to distances between tanks and in the case of underground tanks. Similarly Detroit, Pittsburgh and Duluth follow the model either exactly or with slight variations.

Prohibition of Drain Connections—Proper Venting

Chapter four covers the prohibition of drain connections, eliminating the danger of sewer explosions, provides for proper and adequate venting of tanks for the removal of flammable vapors, and indicates essential requirements for valves, piping and pumping or other equipment for drawing-off liquids for use. The various sections of the chapter cover in detail the requiremetns and due to their technical nature it does not seem pertinent to discuss them in detail at this time.

Chapter five particularly covers the hazards of petroleum, both in refineries and in distributing stations, not covered in Chapters two, three and four of the ordinance. References are made in this chapter to sections of previous chapters which are to be applied in establishments handling petroleum

Construction and Operation of Tank Trucks

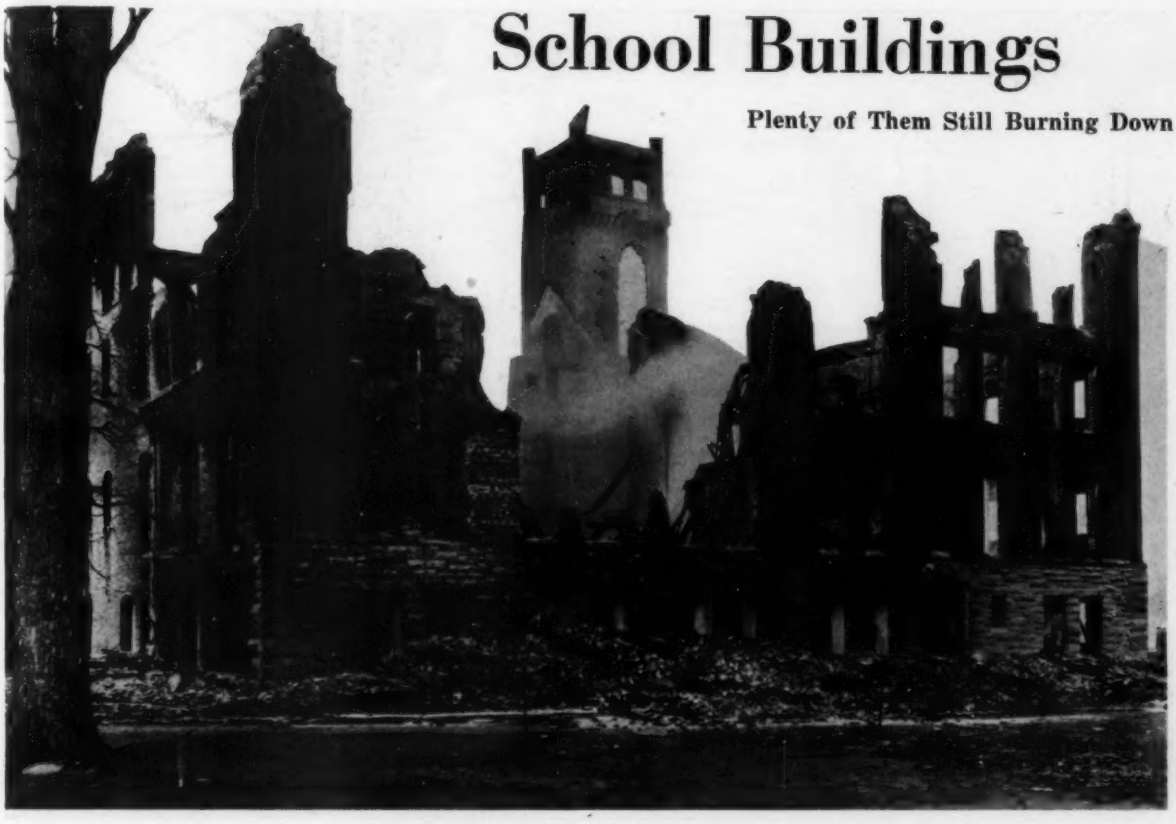
Under this chapter heading reference is made to tank trucks and I would like at this point to call your attention to recommended good practice for the construction and operation of gasoline tank trucks which was adopted at the May meeting of the N. F. P. A. in Memphis. The adoption of the regulations should be a factor in safeguarding the hazard involved in the transportation through our streets.

This point seems an appropriate place to digress for a moment and make a brief suggestion relative to the transportation of gasoline and other flam-

(*Continued on page 868*)

School Buildings

Plenty of Them Still Burning Down



Even Normal Schools Fall Prey to Flames

In January of this year the normal school located at Plattsburg, New York was leveled by fire. Three students were hurt and several escaped with minor injuries. Trapped by flames in one corridor and locked door in the other, one of the teachers of the school effected successfully the rescue of six students by dropping them from a second-story window.

TODAY school buildings are being erected in such a manner as to minimize the danger of fire. Fire-resisting materials are employed throughout, and every possible means of safety to occupants are being incorporated.

But cities are very loath to tear down and replace with modern structures old buildings which are still serviceable. The result is obvious; the majority of school structures at present in use in this country are not built along modern lines, but possess features which make them dangerous both from the standpoints of fire and safety to occupants

Each month shows its quota of school buildings leveled by fire, and such may be expected to continue until all of the buildings of earlier design are replaced by modern structures. Fortunately, sufficient attention has been given to city school buildings to make them fairly safe for the children. Fire exits are usually found in sufficient number to insure escape of all persons therein should fire occur. As much cannot be said of the small town and rural school. However, this article deals chiefly with schools located in cities maintaining modern fire departments, and hence excludes the dengerous fire-trap type of school encountered in rural communities. Incidentally, disastrous experiences such as the Collingswood fire awakened school architects to eliminate many of the hazardous features formerly found in school buildings.

Construction

School buildings of the present time may range from the frame structure of two stories in height to the modern establishment of four or more stories height, erected entirely of fire-resistent materials. It is the former classification which is responsible for what life loss has been experienced in recent years in school fires. Provision is made in the modern types of school structures for exits from two or more points of the building at the same time so that if one exit, such as stairwell, is involved by fire, the others at more remote points may be used.

In the earlier types of structure in which we are more particularly interested just now, a main stairway is usually found leading from the ground floor to the top floor with entrance at the front of the building. Rear stairway is also provided, as are exterior fire escapes.

Frequently a stairway leading to basement may be found beneath the main stairway on the ground floor.

In general, the frame type of school, as well as the old type brick school, is so designed as to permit rapid spread of fire once it starts. Fire sweeping up the main stairway strikes the top floor, where it quickly banks up and spreads through hallways cutting off the escape of those in rooms on the top floor, unless fire alarm has been sounded and the children in these rooms have been directed to fire escapes or to other stairways than the one involved.

Rarely is vent provided over main stairwell to permit heat and smoke to pass through the roof to the atmosphere. Were such a vent installed, and equipped with fusible links, the possibility of loss of life is reduced very much.

School Buildings Make Hot Fires

Despite the efforts of the local fire department and those from surrounding towns, fire destroyed the high school at Monroe, N. Y., in April of last year with the loss of nearly a quarter of a million dollars. Note the fierceness with which this particular fire is burning.

Basements of such buildings are invariably finished in wood, many having no ceilings. Stored in the basement may be found old desks and other furniture as well as coal and other combustible materials.

Usually consisting of one large room, fire originating in basement will quickly involve the entire basement and thereafter find its way up through vertical shafts to upper floors.

Handling the Fire

The majority of school fires start in the basement, although some occasionally originate in the attic due to defective chimneys or lightning. A fire starting in the attic is not as serious a matter, for it permits all in the building to reach a point of safety.

Fire starting in the basement, on the other hand, constitutes a very serious situation for once the basement is involved, fire may be expected to reach stairwells and other vertical shafts through which it will travel with extreme rapidity to the upper parts of the building.

Assuming a fire starts in the basement and that the department is promptly called, also that the main stairway has become involved and the hall on the top floor is filled with smoke, the operations of the department would be about as follows:

Commanding officer arriving with first alarm assignment will immediately assume command, transmit a call for additional apparatus, and then proceed in holding the fire from spreading and in rescuing those trapped on the upper floors. If fire has not yet reached the ground floor or floors above, a single line stretched in through window or through main doorway, if it will not obstruct the passage, may well hold the fire from rising until those in the building have reached safety. On the other hand, if the fire has risen from the basement and reached the main stairwell, then the department will have to get lines in operation in a hurry to prevent flames from spreading over the top floor and causing severe loss of life.

In this latter case, immediately send one man to the roof to open up over main stairwell and permit the heat and smoke rising to pass out through the roof to the atmosphere above. Have first engine company stretch in two lines, one to cover the door leading from the basement and the other to work up the main stairway.

Send men at once to the upper floors to take the situation in hand and direct children to the proper stairway.

If the top hall is so involved as to prevent its being used by the children, all efforts will have to be directed toward taking the children down by way of ladders placed at the outside of the building, and by life nets, in an emergency.

Such operation will require considerable additional personnel and equipment over what would be required for fighting the fire itself, and this point should be borne in mind when transmitting the call for help.

After taking care of ventilation, and having lines

(*Continued on page 860*)

Curing America of Arson

This Most Despicable of Crimes Can Be Controlled — Evidence Must Be Carefully Prepared — Four Things Necessary to Convict

By JOSEPH F. GILLECE, Chief Special Agent, Arson Division, National Board of Fire Underwriters

THE prevalence of the crime of arson and the difficulties that confront chiefs and others charged with the apprehension and punishment of this worst type of criminal, is well known. The following article deals with the subject in an important and practical way:

Joseph F. Gillece

By common agreement arson is the most despicable of all crimes. It is sordid in motive and utterly regardless of other people and frequently causes the death, not only of innocent occupants of buildings which have been set on fire, but also the lives of many firemen which have been needlessly sacrificed to this plague. The public is commencing to realize that this is the one crime that is virtually always committed in cold blood. Murder in its several bloody degrees and other crimes conceived and executed by humans are sometimes committed in the heat of passion and are unpremeditated but not so arson. It is cruel, cold, cunning, slinking; planned always in advance and carried out by stealth, in the truest sense a midnight crime. And who is it that commits this dastardly act? The popular conception of an incendiary, the person who burns to defraud, is a hideous, brutish, hulk of a man, unkempt and with a cap pulled down over his shifty eyes. Most people would be astounded to read the occupational list of the hundreds who have been found guilty of this crime in the past few years—rich man, poor man, beggar man, thief, doctor lawyer merchant and the roster of arsonists is by no means complete with this wide category. The average person will pass him on the street without knowing him. He is in all walks of life literally. He may have been living next door.

Many Motives for this Crime

There are, of course, many motives for this crime. Sometimes it is perpetrated to recoup mounting financial losses or to avert bankruptcy by selling the property to the insurance companies, or rather the insured part of the population since, in the end, they pay all the losses. Again, it may be greed that prompts the formation of arson rings and yet there are many other motives, revenge for real or fancied wrongs, to conceal another crime, race or religious prejudice. All these and many more, including insanity in several of its forms have led to innumerable criminal fires.

The person who deliberately sets fire for the purpose of defrauding the insurance company or for any other motive should have meted out to him the punishment prescribed by the statutes of the state. Every person owes it to himself and to his community to prevent crime of whatever character and yet it is the attitude of the people in excusing and condoning crime that makes it difficult for investigators and prosecutors to convict those guilty of infractions of the law.

The Preparation of an Arson Case

In order to do justice to it and present it with some semblance of intelligence I am going briefly into the preparation of an arson case. In most cases of burning to defraud the initial investigation of the fire must, necessarily, be made by the members of the Fire Department. The police officials and the Fire Marshals should be notified in order that the investigation may be continued and the incendiary identified and prosecuted. Officers who are charged with the handling of arson cases should take all possible steps to prepare themselves with a knowledge of the crime itself, the law governing its commission and what evidence is necessary to secure a conviction.

It is my certain knowledge that cases have been lost and those responsible for the crime of arson have not been brought to justice because of the fact that those whose duty it was to see did not, in fact, see the things that were there and which they could easily have discovered had they been posted on what evidence is necessary and the weight of each incriminating fact in arson investigation. It is my belief that there should be one man designated at each fire to keep his eyes open and to make it his first duty to search most carefully for the origin and the cause of the fire while the fire is burning, and only after such scrutinous investigation to make it his next duty to fight the fire. There will be nothing gained by saving some old barn and letting evidence get away which would land the fire bug whose next fire may be the best structure in the city, which may turn out to be a total loss.

Four Things Must Be Established to Prove Guilt

To develop a case of arson and justify a hope of conviction, there are four things that should be established in order to prove the guilt of the accused beyond a reasonable doubt.

First—The Fire. It is necessary to introduce evidence that the fire actually occurred at a certain time within the jurisdiction of the court. In large cities and towns where there is a paid department the hour of the fire is recorded. In smaller towns and villages the approximate time of the fire can usually be shown, either by some member of the fire department or by an interested neighbor. It is always important to ascertain who discovered the fire and to interrogate him carefully as to the appearance of the building, the extent of the fire, its location and other related facts.

Second—Origin—Incendiary. Evidence of some sort must be introduced to establish the fact that the fire was of incendiary origin. All fires are presumed to be of accidental origin, and it is necessary for the state to introduce positive evidence to overcome this presumption. It is not, however, necessary to prove the incendiary origin of the fire by direct evidence. It can be shown satisfactorily by circumstantial evidence entirely. In one case of record the court said:

"Where evidence shows that certain buildings have been burned and that there were marks of a carriage having been driven to such premises, and footprints leading from the place where the carriage stopped to the house, there was sufficient proof of the body of the crime."

"IT is my certain knowledge that cases have been lost and those responsible for the crime of arson have not been brought to justice because of the fact that those whose duty it was to see did not, in fact, see the things that were there and which they could easily have discovered had they been posted on what evidence is necessary and the weight of each incriminating fact in arson investigation."

And in another case the Court said:

"Proof that a schoolhouse in a country district was destroyed by fire about two o'clock in the morning and that a man's footprints, made at a time when the grass and stubble were wet with dew, were found leading to and from the building, is sufficient proof of the body of the crime to admit the conviction of the accused."

Sometimes Can Be Established by Direct Evidence

It frequently happens that the incendiary origin of a fire can be shown by direct eivdence such as the saturation of the premises with kerosene, gasoline, or some other inflammable fluid. It can be established by showing that there were two or three fires which were separate and distinct, each having no connection with the other. If articles of furniture have been so arranged as to retard the work of the firemen or if evidence is found that a considerable part of the furniture, fixtures or stock was removed from the building previous to the fire, it indicates that it was the result of design. Such suspicious circumstances as these can always be introduced to strengthen the proof of the body of the crime. It is highly important in all cases where evidences of the incendiary origin of the fire are found that the premises be photographed in order that the jury may be able to see the exact conditions. If the investigation indicates that articles of stock, furniture, fixtures and so on were removed from the building before the fire occurred, the importance of locating these articles and having them identified and photographed cannot be over-emphasized.

Great Care Needed in Examining Fire

It is extremely important that the investigator exercise the greatest care in examining articles found near the fire such as bottles candles and similar "tools" of the arsonist's trade, which show evidence of having been handled by the incendiary.

New Fire Alarm System to Protect Ford Museum of American Antiquity in Dearborn

A new fire alarm headquarters costing $45,000 has been erected to serve the municipalities of Fordson and Dearborn that have consolidated into one community known as Dearborn. The fire alarm equipment was installed by the Gamewell Company. It consists of three 10-circuit storage battery switchboards, four 4-circuit box line relay boards, one 4-circuit primary alarm board, one 4-circuit secondary alarm board, one 30-circuit protector boards, transmitting and recording sets, and 212 fire alarm boxes. Dearborn has a population of 150,000 during working hours because of the plants of the Ford Motor Company, Ford Aircraft Factories and the Graham-Paige Company. The Ford musuem will be opened October 21, and there will be a replica of the old Independence Hall at Philadelphia. R. E. Mottesheard, formerly chief of Fordson, Mich., is head of the consolidated fire department.

All such articles should be carefully investigated by an expert for evidence of finger prints. Finger prints are most conclusive evidence. The prints of no two persons are exactly alike, and a finger print expert can make positive identification from them. It is a form of evidence where demonstration can be made in the presence of a jury and an expert be able to testify positively. In this respect it differs from the testimony of a handwriting expert, who always gives mere opinion evidence.

It is frequently advisable to eliminate insofar as possible all the accidental causes which might be put forward by the accused as the probable cause of the fire. It is therefore highly important, if possible, to examine the heating and electrical equipment of the building in order to prove that the fire was not due to any defect in these systems. All accidental causes should be eliminated. This should be done because a fire may be so suspicious as to indicate the act of an incendiary when in fact it was not.

Establishing Positive Motive

Third—Motive. It is extremely important, though not absolutely necessary, to establish a positive motive on the part of the accused in the trial of a case of arson. The motive for the crime is usually revenge or a desire to defraud the insurer. Over-insurance is not always necessary to prompt an attempt at burning to defraud. Straitened financial circumstances or a desire to change location or some other such motive, may be sufficient to prompt a man criminally inclined to attempt a quick "sale" of his property to some insurance company. It is quite important, in all cases of arson in which a desire to defraud the insurer is the motive, that the value of the property destroyed be determined as accurately as possible. In all cases where the property is not burned entirely out of sight, an inventory should be taken by some person who can qualify before the court as an expert on values.

Must Show Proof of Guilt

Fourth—Proof of Guilt. If a man is directly accused of the crime of arson, it is necessary to show by facts or circumstances, or both, that he could and actually did set the fire in question. If he procured another to set the fire, or if he aided or abetted the real incendiary, he is equally guilty and liable to prosecution. After the body of the crime has been established in an arson case, every fact or circumstance tending to throw any light on the case is usually admissible as evidence against the accused.

Assaying the Suspect

The demeanor, conduct and actions of the persons suspected of a crime, such as attempted flight, the desire to elude discovery, and anxiety to conceal the crime or evidence of it, are always important as indicative of a guilty mind. It is important to investigate every incriminating circumstance tending to show that the fire was of incendiary origin and that the accused was connected therewith. Therefore his actions, statements, conduct and whereabouts at or near the time of the fire should always be investigated. Any act of preparation, or the possession by the accused of the means or instruments by which the fire was set, or his possession of goods proved to have been in the building immediately before the fire, or proof that he removed goods from the building shortly before it occurred, is always important and admissable as evidence against him.

Those who are engaged in the nefarious business of burning are well aware of all the differences, all the confusion, all the legal checkmates and technicalities encountered by the authorities in administering the various arson laws and in prosecuting suspects. They study them and in some instances even contrive to live within the letter of the law while treating its spirit with the utmost contempt. That the result is an enormous economic waste to the country, as well as a demoralizing influence generally, need hardly be said.

The Fire Bug

Thus far nothing, or but little, has been said concerning the so-called "fire-bug." He, it is, with whose operations the public at large is perhaps most familiar, for his name seems to be legion. People usually think of him, when incendiarism is discussed, although the truth is that he is only a part, albeit a dangerous part, of the army of burners which preys upon the American public.

Every fire-bug of course, in the language of the street, is crazy. His affliction may range from a mild perversion which psychiatrists and students of abnormal psychology identify almost always with certain sexual crises—through the various forms of dementia down to hopeless insanity. Starting a fire, with him, satisfies some obscure urge; he obtains from watch-

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THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

HYDRANTS are of value to the fire department only when they are in proper operating condition. Like most other mechanical equipment, hydrants become worn and certain parts demand replacement, some parts require frequent oiling, and in the winter time, regular inspection is necessary to be sure that the barrel is free from water.

Constant supervision is necessary.

In many cities, the procedure is for the fire department to report the location of any hydrants demanding attention and also any hydrants used by the department during the months when freezing weather is common. The water department then makes the necessary repairs and reports back to the fire chief that the hydrant is in good operating condition.

The problem that is treated in this issue is printed in the box on this page. In the box on the following page is the question that will be discussed in the next issue, and it is particularly timely because now is the time when domestic heating plants are being placed in service for the fall and winter seasons.

If you have any comments on the next problem or if you have a question that you would like to see discussed in this department, write to "The Round Table Editor," FIRE ENGINEERING, 225 W. 34th St., New York, N. Y.

Here Is the Problem

Who inspects fire hydrants in your city?

How often are inspections made?

In the event that defective hydrants are found, what procedure is followed in having them repaired?

The Question

Either the hydrant inspections are carried on by the water department or the fire department assigns one or more men to keep track of the hydrants. The replies received follow:

August Gerstung, Chief, Elizabeth, N. J.: Our fire department consists of nine engine companies and three truck companies. The city is divided into twelve fire prevention districts and the captain of each company is responsible for the district assigned to him. His duties include the inspection and care of fire hydrants in his locality. Men are sent out to make both fire prevention and fire hydrant inspections. During the summer, twelve days a month are given over to this work. In October men are sent out to oil all the hydrants and prepare them for the cold weather. In the winter inspections are made every day. During freezing weather hydrants found to be leaking are drained. All companies are provided with hand pumps for this purpose.

In answer to your second question I would say that the city owns all fire hydrants, gates and lines connecting the water mains. The mains and water are owned by private corporations. When repairs are necessary to fire hydrants, the Secretary of the Board of Fire Commissioners sends an order to the water company to repair same. The city pays for the cost of such repairs.

D. W. Holton, Acting Supt., Washington, D. C.: In answering your recent questionnaire which was referred to this department by the Chief of Fire Department I would say that this department employs a crew of four fire hydrant inspectors who make regular rounds of inspection.

All fire hydrants in the downtown or business sections are inspected once every six days and the outlying or residential sections are inspected once each month. The inspectors operate the hydrants to see that water is available. Any defects of a serious nature are reported to headquarters at once. A repair outfit is immediately sent out to make the necessary repairs and adjustments.

C. M. Johnson, Chief, Knoxville, Tenn.: Inspection of fire hydrants is made once a year by the water department. If at any time a defective hydrant is found, it is reported to the water department who makes the repairs and reports back to the fire department.

I am planning a system whereby inspection of hydrants will be made three times a year by the firemen, each company taking care of their immediate district. In this way firemen will become familiar with the location of hydrants. Also, the department will have a closer check on the condition of the hydrants and thereby keep them in better condition.

Hugh F. Morris, Chief, San Mateo, Cal.: Hydrants are inspected once a year by firemen, different men taking care of this work each year. When inspections are made, a card is filled out showing the details of the inspection. In this way, firemen become acquainted with the location of the various hydrants.

In the event of hydrants needing repairs beyond the extent of the inspector, a report is turned in to the chief's office. In turn a written report is sent to the water company who takes care of the repair work immediately.

James D. Kailor, Chief, Columbus, Ind.: The fire department is charged fifty dollars a year for each fire hydrant. Inspection of all fire hydrants is made by the chief in March and September. The water department also has the mains flushed twice a year, June and November. When hydrant inspections are made any defects are reported at once to the water department in order that repairs can be made immediately. If the hydrant is beyond repair, a new one is installed in its place. We make a special effort to see that hydrants are in good working order at all times.

John J. Hannigan, Chief, Norwood, Mass.: Hydrants are inspected and where necessary they are repaired or replaced by the department of public works. Inspections are made monthly. When a hydrant is used by the fire department or by any member of the fire department for any purpose whatever, a report is made to the superintendent of public works stating the condition in which the fire hydrant was found and the condition in which it was left. Any repairs needed, such as leaks, missing parts, burred threads, etc. are also reported to the superintendent. A duplicate of this report is held at fire headquarters. In this way, both departments have a record of the hydrants and are able to check up at any time. When inspections are made, the name of the person making the inspection and the date of same is also kept on record.

Paul J. Dolan, Chief, Cedar Rapids, Iowa: Hydrants are inspected by members of the fire department once each

month. Water works employees also inspect the hydrants every month. Defective hydrants are reported to the city water works as soon as they are discovered. The water department takes care of the necessary repairs or replacements made.

Daniel H. Shire, Chief, Mason City, Iowa: The water department inspects all hydrants twice a year, in the spring and fall. They are opened, flushed and repairs are made, if necessary. If outsiders notice anything wrong with a hydrant they usually call the fire department and we in turn notify the water department.

In the winter months we carry hydrant pumps and pump out all hydrants that we use at fires.

We secure very good co-operation from the water department as they are very prompt in making repairs and the hydrants are kept in working order at all times.

W. C. Watters, Chief, Oak Park, Ill.: Inspections are made by the water department inspectors every three months. If we discover a defective hydrant it is immediately reported to water departments and they make the necessary repairs immediately. We have twenty-four-hour service at our water department.

In cold weather whenever a hydrant has been used it is reported to the water department who sends an inspector to examine it.

Chas. G. Alford, Chief, Anderson, Ind.: The water plant is municipally owned and inspections of hydrants is made under the direction of its superintendent. There is no set time for inspections in this city.

In the event of a defective hydrant being discovered, the superintendent is immediately notified.

I must say that inspection work here is lax. Sewer flushers, and also street contractors are allowed to use the hydrants. We often find the hydrant threads so worn that fire hose connections blow off. I firmly believe that fire hydrants should be for one purpose only, and that if for fire fighting purposes.

Wm. Clemo, Chief Palo Alto, Cal.: Hydrants are inspected by members of the fire department. These inspections are made once a year. However, we are considering having inspections made twice a year and expect to carry this out in the near future.

When defective hydrants are found they are reported to the water department who sees that repairs are made immediately, whether it is during the day or night. If a hydrant is broken off by an automobile the party responsible for the damage is charged for all repairs and loss of water.

Chas. S. Hafer, Chief, Little Rock, Ark.: The water company in this city has a man assigned to inspect hydrants. Each hydrant is examined about four times a year. However, inspection work is also carried on annually by firemen in their respective districts. Also inspectors of the Fire Prevention Bureau test hydrants in the business and manufacturing districts. All of these inspectors co-operate with one another and necessary repairs are reported immediately to the proper persons. When a hydrant is in need of repairs the water company is always prompt in taking care of the matter.

Geo. Ruey, Chief, Canton, Ill.: All fire hydrants in this city are inspected in the spring and fall of the year by members of the fire department. Every hydrant is opened wide to see that the flow is satisfactory. They are also inspected to see that they drain properly in order that they do not freeze in the cold weather.

When inspecting hydrants any defects found are reported to the street superintendent who has charge of the repair work. When repairs are made a report is sent to me in order that I may be kept informed as to the condition of the hydrants at all times.

R. A. Bogan, Chief, Baton Rouge, La.: Fire hydrants inspections are made by a captain of the fire department. These inspections are made several times a year. Any defects found are reported in writing to the water company. After the water company has taken care of the necessary repairs, a written report is sent informing us of this fact, and we in turn have another inspection made.

Wade U. Webster, Chief, Willimantic, Conn.: Fire hydrants in our city are under the supervision of the water department and are inspected every six months. Defective hydrants and hydrants that are broken in accidents are repaired immediately by the water department.

Also, another precaution which is taken here is that all hydrants are pumped out after use from November to April.

In this city the superintendent of water works responds to all bell alarms, a tapper being maintained in his home.

B. N. Norton, Chief, Bisbee, Ariz.: Bisbee has one man who devotes his entire time to inspecting and repairing hydrants. Our fire system is independent of our domestic supply system. Inspections are not made at any set periods. In some parts of the city they are inspected twice a week.

The man in charge of the hydrants has a gong in his home which is connected to the fire alarm system. After every alarm he calls the department and asks what hydrants were used. Upon securing this information he immediately inspects the particular hydrants to see that they were properly shut off and are in working order.

Eugene Cook, Chief, Denton, Texas: The chief of fire department or some official of the department and a member of the water department take care of the hydrants. Some inspection work is going on practically all the time.

In the event of any hydrant being defective, or if those inspecting note anything that can be improved upon, the water department is immediately notified. We have always obtained excellent co-operation from the water department in the matter of hydrants. They take care of all repairs immediately.

J. O'Hearn, Chief, Watertown, Mass.: The water department takes care of the inspection. Twice a year all hydrants are examined in detail. In the fall, the caps are greased, and in the low lands hydrants are drained and filled with oil to prevent freezing.

Defective hydrants are reported to the water department who repairs them at once. We have a card which is filled in and sent to the water department when a hydrant is found in need of repairs. That is, if a hydrant is hard to open, or does not close tight, etc., this information is sent to the water department.

C. E. Gillen, Chief, Racine, Wis.: The water department inspects the fire hydrants in this city. This work is done monthly. Where a hydrant is found to be defective it is repaired if possible or else replaced by a new one.

Racine has adopted a new style hydrant. This hydrant has one 4½-inch opening for steamer connection with a 2½-inch opening in the cap to provide for hydrant steam only.

I firmly believe that inspection of hydrants is very necessary, especially in severe cold weather. We have had several which have given us trouble by not operating due to the fact that they were frozen. These hydrants invariably break when they are put under such a strain.

A. E. Nice, Chief, Columbus, Ohio: The fire department takes care of the inspection of fire hydrants. This work is done every two weeks in the summer and weekly in the winter time. Hydrants known to be bad are inspected daily in freezing weather until the hydrant crew can make the necessary repairs. The installation and maintenance of hydrants is under the jurisdiction of the fire department in this city.

Ben Bangerter, Chief, Mankato, Minn.: The water department inspects fire hydrants in this city. Inspections are made every few weeks during the winter months. When a hydrant is found to be defective the water department is notified immediately.

This arrangement has worked out particularly well

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Here Is the Problem for the Next Issue

What method do you employ for extinguishing chimney fires?

Has it proven satisfactory?

Does it result in any appreciable water damage or other injury to the property?

WITH THE EDITOR

Should the City Send the Chief to Convention?

This question has but one answer. The comparatively small expense involved—that of transportation and hotel expenses—is very insignificant as compared with the many benefits which will accrue to him and his Department through his attendance at the annual convention of the International Association of Fire Chiefs.

What are some of these advantages? In the first place there are the papers and discussions. The authors of the papers to be read at the convention are selected with care and understanding by those in charge of the program. These authors represent the best men available to treat the subjects assigned to them, and are all experts in their lines of work. Besides this, following the reading of these papers, on various important topics of fire fighting and fire prevention, there will be wide spread discussion by the chiefs present, covering practically every section of this country and Canada, and thus presenting views so varied that this feature alone will constitute a liberal education to any chief who will take advantage of the opportunity.

Then there will be the personal contact with chiefs from other fire departments, and the opportunity to discuss with them methods and ways of fire fighting, discipline, government, fire prevention, and a hundred other topics of extreme importance to the head of the fire forces. By this means the Chief can obtain views of others at first hand on any special subject he cares to introduce in the course of conversation. Similarly, there will be the Round Table sessions, at which any Chief can bring up the subject most near to him and ask for a general opinion upon it.

Another very important feature of the convention, and one from which every chief has the privilege of gaining full benefit are the exhibits by manufacturers of fire apparatus and appliances. Here the Chief has spread before him the latest developments in the science of fire fighting, with every opportunity to examine such apparatus and devices at his leasure, with experts at hand to answer all questions he may ask. Thus he may visualize the advantages in the use of whatever type of apparatus, tool, hose, or device in which he may be interested at first hand, and with plenty of variety from which to choose.

All of these advantages and many others are as much the concern of the city as they are of the city's fire department head. Whatever benefits he may reap, whatever new ideas he may gain, whatever improved apparatus or equipment he may encounter, the city will be an equal gainer with him in the resultant improvement in the fire-fighting forces.

Such being the case, is it not fair, as the Chief, in attending the convention, is distinctly on the city's business, for the city to pay his expenses? The chiefs are a conscientious and hard working body of men, whose one ambition is to see that their departments are efficient. It is only right that the city should shoulder the expense of attaining this object and the convention is a very important means to this end.

Closing of Exits Exacts Severe Penalties

It is very likely that the proprietors of the Study Club, in Detroit, Mich., never even gave a thought to the fire hazards involved, when they boarded up all but one of the windows of their cabaret, in order that the sounds of early morning revelry might not be heard outside and cause complaint. But, nevertheless, their act in so doing has resulted in the death of twenty or more innocent persons, and the serious injury of many more.

Nor, probably, did they pay any attention to the hazards contained in the tawdry decorations of the establishment, rendered much more inflammable by a coating of wax, to make them glisten. Yet these, in their turn, contributed to the horror of the disaster, by increasing the rapidity of the combustion, when the fire, fanned by revolving ventilators, roared up the corridors from the stairway, where it is said to have originated.

The lesson, from a fire-fighting standpoint, of this tragedy is that such establishments should have most rigid inspection for violation of safety regulations, and should be forced to take all necessary precautions to safeguard the lives of their patrons and employees. The building, in this instance, besides having only one means of interior egress from the upper floors, was also lacking in any form of fire escape. So that even had the patrons been able to gain access to the windows, they would have been compelled to jump to escape, until the arrival of the firemen with their ladders.

The provision of proper exits and fire escapes should be compelled before such places of entertainment are allowed to open their doors to the public.

"Slamming" the Small Volunteer Department

One of the favorite outdoor sports of the metropolitan daily reporter is to write up in so-called humorous vein accounts of small town volunteer departments in their operations at fires. While, no doubt, occasionally there are incidents connected with the fighting of fires that are calculated to incite risibility, more often, in his efforts to be funny, the city reporter oversteps the bounds of both prudence and truth.

Volunteer firemen, as a class, are an earnest and pains-

taking set of men, and certainly endeavor to do their best with what facilities and training they possess. They are, furthermore, mostly business men who give their services to their communities without stint.

One of the cases in which the reporter, in his efforts to entertain the readers of his paper, drew largely upon his imagination, was in an account published recently in a prominent New York daily of a small fire in Dobbs Ferry, N. Y., a prosperous suburb about twenty miles from the big city. In this account the reporter spread himself, describing in a facetious manner how the barn which was on fire was allowed to burn by the firemen; how the "antiquated" pumper had failed to pump, and so on. He depicted the members of the department as typical "hick" firemen and in general poked fun at the volunteer force.

All of this was quite edifying and, no doubt, a number of the readers of the daily managed to get a laugh out of it. However, it turns out that the account was far from the truth. The Dobbs Ferry Fire Department, far from being the loosely organized affair depicted by the reporter, is a compact and well drilled unit of three companies, a hook and ladder, a hose and a pumper, under an efficient chief.

In the present instance, according to the authority of an ex-chief of the department—himself a veteran fire-fighter of long experience—when the firemen arrived on a delayed alarm the building on fire—a barn—was entirely involved and could not have been saved. As a matter of fact, a nearby-by structure badly threatened, was prevented by the firemen from destruction.

While the pumper did fail to operate for a short time, this was because the apparatus had been employed a short time before in pumping out a flooded cellar and a small stone had lodged under the relief valve. When this was removed—as it was shortly after the failure of the pump to operate—a pressure of 250 pounds at the engine was developed and two good streams were available from a siamese connection, drafting water from a near-by pond. There were no hydrants in the vicinity of the fire.

So it will be seen that, if this reporter had taken the trouble to properly investigate before sending in this supposedly humorous account to his paper, he would have avoided doing an injustice to a well organized and efficient suburban Fire Department, composed of earnest young men, who are serving their village at the expense of their own time and efforts.

Fire Marshal Position Open

Applications are being received up to October 22 by the Civil Service Commission, Washington, D. C., for a fire marshal vacancy that exists in the fire department, Washington, D. C. The entrance salary is $3,250 a year and the appointee will have a rating of chief fire prevention assistant to the chief engineer of the fire department.

He will command the fire prevention division and perform such other duties as the chief engineer may direct. The duties will be of an engineering nature and will include such problems as determination of the adequacy of water supply systems, their sources, pressures and equipment, fire equipment and fire alarm facilities, studying conditions with a view to eliminating hazards, reports on fire prevention improvements and the relative merits of fire proofing building materials and equipment. He will have charge of inspections, maintaining records, and so forth.

MAKE YOUR RESERVATIONS FOR THE CHIEFS' CONVENTION

THE time is getting very short before the 57th Annual Convention of the International Association of Fire Chiefs at the Hotel Tutweiler, Birmingham, Ala., October 22-25. Chiefs should make their hotel and transportation reservations at once, so as to secure proper accomodations.

HOTEL RATES FOR THE BIRMINGHAM CONVENTION

Tutwiler Hotel (Convention Headquarters)

Single room and bath	$3.50 and $4.50
Double room and bath	5.50 and 6.50

(With twin beds), $6.50, $7.50, $8.50, $9.50.

Redmont Hotel

Single room and bath	$3.50 and $4.50
Double room and bath	5.00 and 6.00

Bankhead Leland Hotel

Single room and bath	$3.50 to $5.00
Double room and bath	5.00 to 7.00

Molton Hotel (Opposite Headquarters)

Single room without bath	$2.00
Double room with bath	3.50
Single room and bath	2.50 to $3.50
Double room and bath	4.00 to 6.00

Hillman Hotel

Single room without bath	$1.50 and $2.00
Double room without bath	2.50 and 3.00
Single room with bath	2.50 and 3.00
Double room with bath	$4.00, 4.50, 5.00

The last four hotels are within three blocks of Headquarters Hotel. The Thomas Jefferson, a new hotel now being built, will also be ready for the Convention and rooms will also be available there.

Dr. Archer Heads Eastern Special

Dr. Harry Archer, honorary officer and surgeon of the New York Fire Department, will be in charge of the Eastern special that will transport physicians and surgeons of the police, fire and civil service departments of New York, Massachusetts and New Jersey to the annual convention of the association at the Detroit-Leland Hotel, Detroit, Mich. Dr. Daniel J. Donovan of the New York Police Department will accompany Dr. Archer.

The high spot of the convention will be a talk by Dr. George W. Crile, founder and head of the Cleveland Clinic Foundation where the fatal fire occurred last May. He will talk on "The Acute Emergency." A special invitation has been issued by the association to Detroit physicians to hear Dr. Crile.

Another paper will be the treatment of burns with picric acid. Dr. Archer is slated to discuss this paper.

Three-Day Celebration for Station—A three-day celebration was arranged to mark the opening of the house for Company No. 2, Haledon, N. J.

Paterson, N. J., Buys Fire Apparatus—A contract has been signed whereby Paterson, N. J., is to purchase from five to seven pieces of Ahrens-Fox fire apparatus within the next two years.

Chief McAllister Heads County Unit—Chief Edward McAllister of Moorestown, N. J., was elected president of the Burlington County Unit. Chief Williams Massey of Mount Holly was elected secretary.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Discharge from Hydrants

To the Editor:

A hydrant is equipped with two 2½-inch and one 4½-inch outlets, and is supplied by a gravity water system. It is said to have a capacity of 700 gallons per minute.

"A" claims that the capacity of the hydrant less the friction loss can be obtained from one 2½-inch outlet.

"B" claims that the 4½-inch outlet must be used to get the capacity of the hydrant.

An early reply will be appreciated.

E. A. F.

Answer: The term "capacity" as used in this question is vague. A hydrant may have one discharge capacity at a given water pressure, and at a greater pressure, a greater discharge capacity.

As the question does not say at what pressure the hydrant has the 750 gallons discharge capacity, it will be assumed that no pressure is specified. In that case the larger diameter outlet would give the greater flow, and hence should be used. If you carried "A's" line of reasoning on through, there would be no reason why you could not employ a cap for one of the hydrants tapped with a one-inch outlet and still be expected to get 750 gallons per minute. This latter performance, would, of course, be impracticable.

Hence it is proper to assume that under the conditions of the question as stated the larger outlet would be better to use. As a mater of fact, both outlets in operation at the same time would give the greatest discharge, and would be so used in determining the available flow from the feeder main.

Chemical Tank and Booster Pump

To the Editor:

Your answers to the following questions will be appreciated very much:

(1) Would a chemical truck with 2-35 gallon tanks of soda and acid chemical tanks be as effective as a truck carrying 80 to 100 gallons of water, with a small pump for delivering same?

(2) Which does the most damage, water, or the same amount of chemicals?

(3) Does the gas generated in the tank when it is overturned serve to provide the impetus for the chemical through the hose, or does it also have a tendency to extinguish fires, which water does not have?

(4) What effect would water have on oil, in an unconfined space?

(5) What effect would the same amount of chemicals have, under the same conditions?

(6) Is it true that some of the larger fire departments have trucks with small pumps, and hose carrying bodies?

(7) Give the duties of a Lieutenant at a fire.

Yours truly,

L. R. C.

Answer 1. The truck carrying the booster pump and tank of water would probably be more effective than the truck carrying the chemical equipment. Experiments by engineers of the Underwriters' Laboratories show quite conclusively that there is very little difference in the extinguishing effect of the discharge from soda and acid tank and that of plain water. The amount of carbon dioxide discharged by the chemical tank is negligible insofar as fire extinguishing effect is concerned, particularly where fires are not closely confined, such as in partitions, etc. The water tank affords an advantage which the chemical apparatus does not afford in that a supply can be continually maintained without interruption by pouring water in the filling part of the tank while the pump is operating. In other words, a continuous stream of water is possible for any desired period of time.

The extinguishing effect of the free soda in the water is negligible in view of the fact that such soda is usually very small in quantity, the larger proportion of it being neutralized by the acid solution.

Answer 2. If the chemicals are well mixed, prior to discharge, there should be no more damage from the chemical stream than from plain water. On the other hand if the chemicals are not thoroughly mixed there is a possibility of some unneutralized acid leaving with the stream from the chemical apparatus and such acid may injure fabrics and other materials on which it lands. The possibility of this is indeed minor.

Answer 3. Yes, the gas generated by the reaction of the chemicals in the tank serves as the means for forcing the discharge from the nozzle. As far as extinguishing effect is concerned, this is covered in the first answer above. The quantity of carbon dioxide gas discharged by soda and acid extinguisher is approximately equal to the volume of liquid discharged. This gas, if closely confined around the fire would have some extinguishing effect, but as it is quickly dissipated by the draught at an open fire, its extinguishing effect is negligible.

Answer 4. It would probably have a cooling effect, but unless distributed over the entire surface of the oil in great quantities, and the same instant, it is very unlikely that the oil fire would be extinguished. Oil, when burning, is continually generating heat, and any cooling effect produced on it by water would be quickly nullified by reheating upon further combustion. Water, when thrown on oil, sinks to the bottom and in passing through the oil may cool the oil off, but this effect would be only temporary. Water, as a medium for extinguishing oil fires has long since been discarded for foam and other agents which produce positive results.

Answer 5. Precisely the same effect as water. The carbon dioxide gas transmitted by the stream would be quickly carried upward by the draught created by the fire and its effect would be lost. The solution, being water charged with neutralized chemicals, would produce no greater effect than the same amount of water.

Answer 6. Yes, some large departments are putting in hose trucks with small booster pumps for use in residential sections.

Answer 7. When acting as captain at a fire the lieutenant exercises the same authority and assumes the same responsibility. It is the duty of the first lieutenant arriving with his company at a fire to exercise command only until the arrival of a superior officer to whom he reports and whose orders he obeys. He is required to perform such duties as may, from time to time, be assigned to him by superior officers. When a lieutenant is in command of a company at a fire he is required to proceed at once to extinguishing the fire, giving orders to his men such as necessary to efficiently carry out the work of fire extinguishing.

When in service at the fire, and the captain of the company being present, the lieutenant carries out the orders of the captain, serving as foreman over the men and taking orders from the captain, who would correspond to superintendent.

Evaporation of C. T. C.

To the Editor:

Will you please tell me at what temperature carbon tetrachloride evaporates spontaneously so as to be most efficient?

R. A.

Answer: Carbon tetrachloride evaporates at all temperatures at which it is in liquid form, the rate of evaporation increasing with the temperature. It boils at 365 degrees Fahr. Naturally, at boiling point it throws off its vapors at a much higher rate than any of the lower temperatures and may be considered to be fully effective at this temperature.

Fire Losses of New York Cities

To the Editor:

I would appreciate it very much if you will give me the fire loss for 1928 for the following cities: Binghamton, Albany, Troy, Yonkers, Utica and Syracuse.

Very truly yours,

H. J. J.

Answer: We have no record on the fire loss of Binghamton. The per capita fire losses on the other cities, as compiled by the National Board of Fire Underwriters are: Albany, $3.85; Troy, $2.45; Yonkers, $1.89; Utica, $2.85; Syracuse $1.17.

School Buildings

(*Continued from page* 852)

stretched in to cover the fire, get ladders in position and get the children from the various floors to the street. It will be appreciated that the operations of life saving and stretching of lines should be done simultaneously. It is not necessary to wait until the lines have actually been put in operation and ventilating performed before raising ladders for rescue work. In other words, the entire force on hand should be utilized at one time for performing the different operations so that no time will be lost.

Where the halls on the upper floors are not involved by fire, and where they can be used with safety by the firemen and the children in the building, men should be sent by ladders or otherwise to the upper floors to direct the children to safety. In doing this, they will be able to function in two manners, in calming the children and in expediting their movement.

In view of the time required to bring a large number of children down ladders, it is far better policy to make every effort to employ the usual means of escape, the stairways, if fire can be held in check.

Should halls be heavily charged with smoke, but otherwise safe for use, opening up windows and doors or various rooms bordering on the hall will provide

Frame School Buildings are Still Found in Big Cities

Here's a school which burned in Brooklyn early this year. Although over two hundred pupils were in the structure at the time the fire occurred, prompt discovery of the blaze enabled them to reach safety.

ventilation and clear the atmosphere so that the work of the department can be carried on rapidly and efficiently.

Upon additional help arriving, members of fire company arriving should be dispatched to survey ground floor of building and make sure that fire is not rising through other shafts which might further delay the exit of children. If other stairways are exposed to fire coming from basement, lines should be put into service promptly to cover these channels.

Hose, as a general rule, should not be stretched up stairways which are to be used by children in their escape. Such obstructions on stairways seriously interfere with the quick egress of the pupils. On the other hand, if lines are needed on the upper floors and

All Escaped From This Five-Story School, Though Some Were Injured

At this school fire, which occurred in Quebec, Canada, in December, 1927, approximately two hundred boys between the ages of five and fourteen were brought to safety. Of this number around forty were injured in their efforts to escape from the flames. As the illustration shows, the building was a complete wreck by the time fire was brought under control.

if stairways are to be used, such lines should be sent up ladders rather than by stairways.

After all children have apparently been gotten to street, careful survey should be made of all rooms to make sure that everyone is out of the building. Subsequently, full efforts of the department can be directed to extinguishing the fire.

Changes Made in I. A. F. C. Program

Several changes have been made in the program of the International Association of Fire Chiefs as arranged for the Birmingham, Ala., convention, October 22-25.

The topic "Fighting Fires in Cold Weather," has been assigned to Chief D. A. Boulden of Winnipeg. "State Fire Colleges," will be presented by G. H. Parker, chairman of the Fire Service Extension Committee, National Fire Waste Council, instead of G. H. Carlin. The response to the address of welcome will be made by Chief Charles Greenfield, president of the Eastern Association of Fire Chiefs, instead of Chief J. N. Sullivan of Utica, N. Y.

Chiefs who are contemplating entering the fire prevention contest this year are urged to communicate with Chief James J. Mulcahey, Yonkers, N. Y., secretary.

Kellogg, Ia., Receives Chemical Car—Kellogg, Ia., has received a chemical car.

Norwood Springs, Ia., to Buy Apparatus—Funds are being raised in Norwood Springs, Ia., for the purchase of fire apparatus.

Iowa Firemen Hold Convention—More than three hundred persons attended the fifty-second annual two-day convention of the Iowa firemen at Red Oak, Ia. Governor John Hammill addressed the firemen.

Henry Ford Refused Old Pumper—Henry Ford made overtures to a fire company in Dansville, Pa., for an ancient hand pumper that he wishes to place in his museum at Dearborn, Mich. Mr. Ford asked that the pumper be donated and that suitable acknowledgment would be made on the explanatory card. The pumper was made in 1796 and is still serviceable. The firemen voted that the pumper is for sale and will not be given as a donation.

OIL ON WATER IGNITED BY HOT ASHES, CAUSES PIER FIRE

Floating Amid Wooden Piers, Surface Oil Is Set Off by Ashes from Coal Hoister—Fire Department Makes Good Fire Stop

THE members of the New England Water Works Association convention who arrived early on the afternoon of Monday, September 16, were treated to an unusual but involuntary entertainment by the Portland Fire Department. This consisted of one of the worst fires the city has ever experienced.

Chief Oliver T. Sanborn, Portland, Me.

It occurred on Pier No. 1 of the Maine Central Railroad and was caused by the dumping of hot ashes by a crew of one of the pier's coal hoisters into the water. These red hot cinders fell into an accumulation of oil floating on the surface of the water around the piles of the pier, and an immediate flare-up was the result. The rapidity with which this fire spread is shown graphically by the two illustrations.

In the first picture, just at the stern of the collier Plymouth can be seen a small white spot upon the surface of the water. This is the flame surging along the line of oil on the surface. In the second picture this line of burning oil can be distinctly seen stretching from the stern of the ship almost to the shed on the pier, shown in the foreground. This occurred in the space of less than six minutes, according to the testimony of Chief Oliver T. Sanborn of the Portland Fire Department.

At the exact moment when this small flame began creeping along the water at the stern of the vessel the chief stood at the fire box just on the other side of the shed, referred to and sent in the second alarm. The first alarm was sent in at 5:25 p.m.; the second at 5:26; third, 5:28 and general 5:33. As Chief Sanborn pulled the general alarm, conditions were as shown in the second picture, and he was compelled to grope his way from behind the building through the dense black smoke. The shed was afterward destroyed

Entire Department Called Out

With the pulling of the general alarm by Chief Sanborn, the entire fire department of Portland had been summoned, Cape Elizabeth had sent a 600-gal. pumper and South Portland one 1,000 and one 500-gal. pumpers. The apparatus of Portland engaged in fighting the fire consisted of: five 1,000-gal., two 750-gal., and one 350-gal. pumpers; four hose wagons; two city service trucks; two aerials and one combination chemical and hose car. The latter was used to control the outside exposure fires that were started by sparks within a radius of over half a mile of the main fire. One city service truck was held in quarters.

Outside Help Asked For

As soon as the threatening nature of the fire became evident, Chief Sanborn had called for help from several of the surrounding departments, and these quickly responded. Biddeford, Old Orchard and Lewiston each sent a 1,000-gal. pumper and Westbrook, one of 600-gals. The three first named were on their way at 5:50 p.m. and Westbrook started at 5:45. Biddeford and Lewiston assisted in fighting the fire and Old Orchard and Westbrook covered in.

Negro Crew Mutinies

In the meantime, when the fire first started the collier Plymouth, moored alongside the wharf, was right in the path of the flames, and in spite of commands of the officers to remain at their posts to help fight the fire, the crew, consisting of Jamaican negroes, mutinied, seized their belongings, and after cutting the ship adrift, leaped overboard. These men were rescued from the waters by the crews of the Portland Fire Boat and other craft in the bay. The fireboat immediately threw a hawser aboard and the now blazing collier, and towed her away from the wharf, thus undoubtedly saving her from destruction.

The blaze aboard her was quickly extinguished and with the exception of some plates bent by the heat and a bad scorching she was not materially damaged. The loss on the ship was estimated at about $40,000 to $50,000.

Chief Quickly Covers Exposures

Chief Sanborn quickly realized that the pier was doomed and consequently devoted all the resources at hand to prevent the further spread of the fire. The extensive freight sheds of the Maine Central Railroad were badly menaced. A number of dwelling houses also were in danger from the sparks. Beside this the other wharfs of the waterfront were loaded with all manner of inflammable materials, and lay in the path of the fire, should it extend. The chief's job was to see that it did not, and in this he was successful. In spite of a fairly high wind, and choking fumes, the fire was confined to the wharf where it originated.

In fighting the blaze, besides the department fire boat, harbor surveyor's tug "Chicopee" and the Texas Oil Company's tug, each equipped with pumps, were used in fighting the blaze from the water side.

Sulphur Fumes Drive Firemen Back

While at first the men of the fire departments fought the

Fig. 1 (Left) The Early Period of the Fire. Note the small white spot at the left of the collier Plymouth's stern. This is the oil blazing on the surface of the water. Fig. 2 (Right) Taken Six Minutes Later. Note the line of blazing oil has extended along the piles almost to the shed on the pier.

In Fig. 1, the Department Fire Boat is seen approaching the collier. In Fig. 2 she has thrown a line aboard, and is preparing to tow the vessel to safety. The shed in the foreground was destroyed.

fire at close quarters, they were soon driven back by dense fumes from 2,300 tons of sulphur stored in pier sheds on fire. As it was, 13 men were so badly overcome that they had to be taken to the hospital. Of these, ten were from the Portland Fire Department, two from South Portland and one from Biddeford. Three hose lines, of 2,000 feet, were burned before they could be removed. One of the pumpers was so near the fire that it had to be continually kept wet down to prevent its destruction.

Dynamite Cars Saved

At the beginning of the fire, Chief Sanborn was notified that there were six cars loaded with dynamite badly exposed. Preparations were at once rushed to haul these cars out of the danzer zone, and until this was successfully accomplished the department kept the cars well wetted down.

Number of Firemen Employed

The total strength of the Portland Fire Department is 119 permanent men and nine call men. From the out of town departments 75 were engaged in fighting the fire. Some 18,000 feet of hose were laid.

During the fire four alarms—one bell and three phone—came in from other parts of the city. These were successfully handled with no serious losses by the outside firemen, who covered in.

Red Cross Helps

During the fire the Red Cross sent its Emergency Committee, with physicians and nurses, which rendered valuable first aid. The Kiwanis Club served hot coffee and doughnuts to the firemen all night.

The fire burned for 72 hours before it was finally extinguished. The mass of twisted metal work of the coal hoist and pier structures was viewed with great interest by the water works officials on the Wednesday following, when a steamboat containing the convention members of the New England Water Works Association was hove to to view the ruins of the fire. Many of the officials commented on the excellent fire stop made by the firemen in so extensive and threatening a blaze.

The loss was estimated at a total of $450,000. This is the second large fire Portland has had within a month. On the night of August 17 a large hardware establishment was burned with a loss of $200,000.

BURNING BARGE CUT ADRIFT CAUSES $1,000,000 DAMAGE

Boat Beached But Flood Tide Drifted It—Fire Spread to Several Points Along Shore—Elizabeth Was in Danger

By WILLIAM JEROME DALY

FIRE in a wooden oil barge which started from lightning and did incalulable damage to oil properties in the New Jersey oil district as well as to two New York City fireboats, just because some well-intentioned but misguided person cut the flaming hulk adrift, may yet furnish the reason for a desire on the part of New York City authorities to seek a modification of the New York City Charter, which imposes on

Fighting the Fire That Was Spread by Drifting Oil Barge

the New York Fire Department the burden of protecting the New Jersey as well as the New York water front.

The fire started at about 6 o'clock Saturday morning, September 14, presumably from lightning which is credited with having struck the barge moored at the Warner & Quinlan plant at Chelsea, N. J., on Kill Von Kull, the strait that separates Staten Island from New Jersey. Chelsea is near Linden, N. J.

A watchman on duty is said to have cut the flaming barge adrift. The barge had tanks containing six thousand barrels of oil. The watchman, as yet unidentified, telephoned the New York Fire Department for help. Deputy Chief John J. McElligott, in charge of the Marine Division, sent the fireboat Zophar Mills, stationed at St. George, S. I., more to protect the Staten Island waterfront than anything else. Staten Island is a political subdivision of the City of New York.

The tide in that narrow channel played havoc with shipping generally when the flaming barge drifted at will. The skipper of the Zophar Mills approached as near as he could. He managed, by trick maneuvering, to beach the barge on Prall's Island, Staten Island, but a flood tide soon floated her again and she drifted. Her seams opened and blazing oil soon covered a large area of the surface of the Kills. The skipper of the Mills asked for help and the fireboat William J. Gaynor was sent across the bay from South Brooklyn.

The best the fireboats could do was to confine the fire to as near the burning barge as possible. The barge in the meantime had floated toward the Swan & Finch oil plant at Linden, N. J., and set it afire, causing many huge tanks to explode; then she floated to the Standard Oil plant, also at Linden, and set that afire, where more giant tanks exploded.

At 6 o'clock Saturday evening Deputy Chief McElligott went to the scene in the fire tug Capt. Connell, a sort of flagship of the fireboat fleet of ten boats of the New York Department. The heat was so intense that the fireboats were blistered from stem to stern. Plate glass windows on the fire-boats cracked like pipe stems. It has been conservatively estimated that $8,000 damage has been done to the two New York fireboats in their heroic attempt to check or confine the fire. Eight tons of foam were used.

The fire lasted eighteen hours and besides the damage done to the fireboats it is thought the damage done ashore and the loss of oil stock will reach nearly a million dollars.

Restaurants supplied coffee and sandwiches in great quantities throughout the day and night.

New Jersey fire fighting groups gave great credit to the New York fireboats and their crews in helping conquer the flames. They declare that the boat Mayor Gaynor was the means of saving the Town of Elizabeth, which was threatened at one time during the passage back and forth of the blazing oil barge.

The New York City Charter requirement that the New York Fire Department shall protect the waterfront of the State of New Jersey was enacted many years ago. It is known as Section No. 756 of the City Charter and it grants to the New York Fire Department full and complete authority over fires in craft afloat in the harbor of New York, which means anything from the Sandy Hook Lightship to Sands Point on the Sound and Yonkers on the Hudson.

There is talk in and about the Fire Department of the possibility of making it a crime for any person to cut a burning vessel adrift, thereby menacing considerably more shipping than would have been endangered had the flaming craft remained moored where the fire started.

Ruins of Bayway Storehouse Near Which the Barge Was Anchored

One Killed During Explosion of 40,000 Gals. of Gasoline

While fighting a fire that started in the storage yards of the Sun Oil Company and the Oil-O-Matic Company, Reading, Pa., 40,000 gallons of gasoline exploded. One man was killed and four other employees were injured.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending September 20

CLEVELAND, O.—Euclid Ave., unfinished apt. bldg.	25
MARCELINE, MO.—Several business bldgs. damaged	45
ST. PAUL, MINN.—Whse of Insulite Co.	25
OHATON, ALTA, CAN.—L. F. Patterson store, adj. bldgs.	40
NORFOLK, VA.—Naval depot, St. Julien's Creek	25
WASHINGTON, D. C.—Lumber yard, W. H. Church, Inc.	65
BIRMINGHAM, ALA.—Bldg. of Swift & Co. damaged	65
HAMPSHIRE, ILL.—Business establishments destroyed	35
FARSON, WYO.—Hotel and store bldg. destroyed	40
KNOXVILLE, TENN.—Mynatt Bldg., Market St.	35
PORTLAND, ME.—Whse. and Maine Central R. R. property	300
NORWOOD, MASS.—Plant of Winslow Bros. & Smith	25
ST. PAUL, MINN.—Lumber yard, Osgood & Blodgett Mfg. Co.	80
KALAMAZOO—Plant of National Refining Co.	80
STERLING, KANS.—Grain elevator, Arnold Milling Co.	65
VENTURA, CAL.—Oil field, bounded by Ventura, Ojai and Santa Paula	2,500
EVANSVILLE, IND.—Factory of Automotive Electric Co.	60
NORWALK, CONN.—Property of M. Roberts, Cranbury Section	25
NEW GLASGOW, N. S.—Studebaker & Calder garages	25
EDGERTON, ALTA.—Several business establishments	30
LOMOND, ALTA.—Town Hall, adj. property	30
FLEMINGTON, N. J.—Main Plant of Fuller Pottery Co.	100

Week Ending September 27

NEW BUFFALO, IND.—Home of J. M. Clearly	30
MORRISBURG, ONT.—Factory of Marash Stone Co.	80
KALAMAZOO, MICH.—Whse. of Lee & Cady of Detroit	65
WARRINGTON, PA.—Barns of S. Kristal and J. Barnett	25
NEW HAVEN, CONN.—Clubouse New Haven Lawn Tennis Club	45
MODESTO CAL.—Property of J. H. West & Co.	45
SUNFLOWER MISS.—Baled cotton of Mosby & Sledge	25
MALDEN MASS.—Plant of Hammond Lumber Co.	25
NOBLE, PA.—Clubhouse of Balder wood Golf Club	40
MALDEN, MASS.—Mill of Malden Grain Co.	65
NEW HAVEN, CONN.—Coal pockets of Morris Spier Co.	25
HARTLAND, WISC.—W. D. Zeirke hardware store	30
CLEBURNE, TEX.—Cleburne Hotel, adj. bldg.	50
GENEVA, N. Y.—Yacht of Perry M. Sheppard	25
POTTSTOWN, PA.—Store of Vanbuskirk & Bros.	40
BETHLEHEM, PA.—Bldg. occupied by F. Goldberg	35
JOLIET, ILL.—Property of A. A. Rubnitz	40
EAST MACHIAS, ME.—Arcade Theatre building	35
S. STATESVILLE, N. C.—Lumber plant, C. M. Wall & Son	40
BLUFFTON, OHIO.—Plant of Nat'l Lime & Stone Co.	250
HAFFORD, SASK.—Several bldgs. destroyed	40
BLOOMINGTON, IND.—Power plant, Indiana University	150
BURT'S CORNER, N. B.—Mill of Burt's Corner Lumber Co.	40
ST. MICHAELS, MD.—Garage and adj. property	40
LAKE PLACID, N. Y.—Cottage owned by Lester Cautin	35
FORT LEE, N. J.—Bldg. of Consolidated Film Co.	80
RIVERDALE, MICH.—Railroad station, adj. property	125
GENEVA, N. Y.—Baeder block, Exchange St.	35
SOUTH HEART, N. DAK.—Occident elevator destroyed	40
SOUTH BEND, IND.—Granda Theatre damaged	65
MILFORD, MICH.—Several business establishments damaged	40
GREENWICH, CONN.—Whse. of Frank Cotone damaged	40
NASHVILLE, TENN.—Bldg. occupied by Elam Mfg. Co.	25
PATERSON, N. J.—Bldg. occupied by United Dye Wks.	150
CAMDEN, N. J.—Machine shop of N. Y. Shipbuilding Co.	25

Ringoes, N. J., to Buy Apparatus—Ringoes, N. J., is to purchase a chemical car equipped with a booster pump.

Illinois Firemen Hold Convention

The forty-second annual convention of the Illinois Firemen's Association was held in Joliet, Ill., September 10-12 President Albert Hasse of Peru presided at the meetings. Mayor George S. Sehring welcomed the visitors. "How to Maintain and Run a Volunteer Fire Department," by Chief E. W. B. Sparks of Bushnell was the first paper presented.

In the afternoon, Chief George R. Ward, Division of Fire Prevention, St. Louis, spoke on "Training New Firemen." He was followed by Chief Albert Herring, Murphysboro, with a paper on "Our Obligation to the Exhibitors." This was printed in the September 18 issue of FIRE ENGINEERING. John G. Gamber, former state fire marshal of Illinois, spoke at the meeting. Clarence Goldsmith, assistant chief engineer, National Board of Fire Underwriters, Chicago, gave a talk on "Fire Department Operations."

The following morning, shortly after the meeting convened, the members stood with bowed heads in memory of Mr. Thode who died that morning. C. W. Hauth of the Illinois Inspection Bureau, Chicago, addressed the convention. A paper prepared by Chief John Hawk of Moline on "Our Two Per Cent Foreign Insurance Tax," was presented.

In the afternoon, S. L. LeGried, state fire marshal spoke on "The New Illinois Arson Law and Our Arson Squad." Senator Martin Carlson of Moline addressed the meeting on "Pension laws." Percy Bugbee, assistant managing director, National Fire Protection Association was the last speaker for the afternoon.

On Thursday morning, J. E. Allen, engineer, Boyer Fire Apparatus Company, Logansport, Ind., spoke on "Pumpers in Fire Fighting Service," and John Byers of Dixon, also addressed the members.

The new officers elected are Albert Hasse, Peru, president; Fred P. Haderlein, Carlyle, vice-president; Roy W. Alsip, Champaign, secretary; Simon Kellerman, Jr., Edwardsville, treasurer; Elmer W. Weidler, Mt. Olive, historian. The executive board is to consist of Thomas J. Ruddy, Joliet; M. J. Myers, Mt. Pulaski; Pearl Smith, Madison; Sam Hunt, Jacksonville; Louis Reich, Riverdale; Albert Herring, Murphysboro; Joe Valentine, Rock Island, and Harry Hossutt, LaSalle.

The convention next year will be held in Peoria, Ill.

N. Y. Fire Caused by Incendiarism

In some mysterious way, the two top floors of a seven-story apartment building under construction at 225 W. 23rd Street, were damaged by fire. Fire Marshal Thomas P. Brophy started an investigation shortly after the fire was discovered and twenty-four witnesses were questioned. At first he was inclined to believe that the labor racketeers who were operating in the Bronx area had extended their field to include Manhattan. But the investigation disclosed that this was the wrong theory and the blaze was probably due to incendiarism.

Fire was discovered at five o'clock just as the plasterers were getting ready to leave. The night watchman, who had just arrived, turned in the alarm.

When the first company arrived, the upper part of one

Fire Destroyed 150 Trucks in Brooklyn Garage

An early morning three-alarm fire in Brooklyn, N. Y., destroyed 150 auto trucks in a garage. The roof collapsed. Only the four brick walls remained after the fire.

wing was a roaring mass of flames and smoke. The fire threatened to spread to the Y. M. C. A., next door and to the Eastman Kodak Building on the other side. The second alarm brought Chief Kenlon, and a third alarm was turned in immediately. Fifteen pieces of apparatus responded. The streets were jammed with employees of the various fur shops who were then on their way home.

The fire was brought under control before damage could be done to the adjoining buildings.

Curing America of Arson

(*Continued from page* 854)

ing the licking flames a definite thrill or, again as the man in the street has it, a "kick." Fire fascinates him; he is drawn to it irresistibly; he is the human moth lured willy-nilly to the flames of his own creation.

Peculiarities of this Type

Crafty at one moment, pathetically child-like at the next, he and his torch are found everywhere and many and heinous are the human tolls he has taken. He is not always easy to apprehend, since very often he is possessed of all the cunning of an animal; yet more and more of his ways are becoming known as science advances in its study of him. He is, for instance, almost certain not to leave the scene of any fire he has set, or, if he leaves, then he will return; for his only purpose in starting the blaze is to watch it burn. Expert investigators, therefore, have come to look for him, at a suspicious fire, somewhere among the throng which usually collects. Following these tactics, they have been successful in capturing hundreds of pyro-maniacs.

Again, certain incendiaries of the pyromaniac type show a predilection, as it were, for starting their fires in certain ways or in certain circumstances. New York remembers still a veritable epidemic of tenement fires which originated in baby carriages left in lower hallways. A dozen or more of such blazes were finally traced to one man. Other fire-bugs prey upon special occupancies or classes of buildings, as farms, for instance or school houses. Their peculiarities, indeed, are quite too many to be more than suggested here.

The monomaniac is the person with a systematized delusion. When the delusion centers around fire it produces the pyromaniac; just as there is the kleptomaniac in the uncontrollable thief. Every institution for the care of the insane contains many inmates who might properly be classed as pyromaniacs. Unfortunately asylums do not hold all these insane fire-bugs. They are to be found in practically every community and their contribution to the fire loss of the country is appalling. These unfortunates should be carefully watched, since, taken as a whole, they constitute a serious public menace.

Excitement One Factor in Cases of Young People

Many incendiary fires are set by young boys and girls who have a desire to be the center of interest or who derive some satisfaction from the excitement caused by seeing the firemen conquer the flames. In other cases the impulse to set fires is nothing more than an hysterical reaction against surroundings which have become irksome. These classes of pyromaniacs are usually curable, either by a change of environment or systematic training in emotional control.

Fire-bugs, being in some measure insane, are not, strictly speaking, criminals although their acts are dastardly enough. At law, however, there is no means at the present time by which the punishment meted out to them can be differentiated from that accorded to the fraud arsonists and to those others who, although sane, burn for various reasons. Hence the pyromaniac must be put where he can work no more harm, once he is seized. Some day however, when the law is willing to do more than coquette with science, a special kind of incarcecration or segregation unquestionably will be theirs. There is said to be a case at the moment, indeed, in which a firebug, a man hitherto mentally sick on the subject of fire, has been rendered normal by assigning him to stoke the prison furnace! Such a cure, effected thus informally, opens high possibilities for the future in systematically treating pyromaniacs and in preventing their depredations.

How to Cure Disease of Arson

All these factors—the public attitude toward fraud fires, the amount of insurance, the inharmonious population, the lax and varying laws and prosecution procedures, and lastly, pyromania—have combined to give America the worst kind of preeminence. It has made her the home of the incendiary.

How shall she set about curing herself of this malady of arson which afflicts her?

For each of these contributing factors there is a cure or at least a counteractant. Public opinion is even now undergoing reform slowly. Less and less frequently is there heard that sneaking expression of approval of fraud fires, or at least of indifference to them, from otherwise good and reputable citizens. Honest people are awakening to the true nature of the crime and to its effects upon themselves and the country generally. There is unmistakable evidence that people are at last becoming aroused. They are on the defensive now, and before long they can be relied upon to join the authorities actively and without reserve in running down the incendiary. Juries today are covicting with decisive vigor—which, in itself, is the strongest possible deterrant to the potential burner.

Greater Care Needed in Extending Insurance

And there is another deterrant, one that insurance itself is master of—greater care in extending insurance protection. Moral hazard and a condition of over-insurance are synonymous. Not only are underwriters scrutinizing more closely than hitherto the character and reputation of applicants, and their fire records, but they are taking special means to prevent the placing of more insurance on a risk than the sound value of that risk justifies. Volume of "sales" in fire insurance is giving way to selective placing of insurance, and the effect upon the dishonest fire record is already marked.

It is encouraging indeed to observe that in the light of better understanding, the public is beginning to recognize crime stripped in its most cowardly form. Arson is the Crime of Crimes—responsible for more than 50 per cent of lives of firemen lost in all fires. An arson fire is said to cost more than a dozen unpreventable fires. Why shouldn't the public be concerned about it when it is people's money that must pay for the national fire waste each year—not the insurance companies but the people who are unwittingly taxed by commerce on every commodity or type of service they buy, in order that business can afford to pay for financial protection? The disgraceful cost of arson which the American public must meet is the strongest reason for concerted action against a demoralizing force in the progress of the nation.

In conclusion, let me say we should have no apologies to offer to anyone for our part in this war on the torch. There can be no higher profession or calling than that of fighting the battle of right against wrong, protecting the innocent from the wicked, the good against the dishonest and the truth against falsehood.

(From a paper read before the annual convention of the New York State Association of Fire Chiefs.)

Fire-Fighters Parade in Washington

Large crowds lined both sides of Pennsylvania avenue, Washington, D. C., to witness the parade of fire-fighters on Labor Day. The famous dome of the Capitol can be seen in the background.

E. Moline Rejects Station Bid—East Moline, Ia., has rejected the bid for the construction of a fire house.

Peekskill, N. Y., to Have Regular Inspections—Officers of the fire department, Peekskill, N. Y., are to make regular inspections of the business district.

Edgewater Firemen Want Pay Increase—A petition is being circulated in Edgewater, N. J., to increase the pay of firemen. The suggested increase would affect every member of the department.

New Jersey Governor Views Parade—Governor Larson of New Jersey viewed the parade in which three thousand firemen participated, to mark the placing in service of new fire apparatus at Westmont. Chiefs Ross B. Davis of Philadelphia, William J. Lutz of Wilmington, Del., Samuel Conver of Ocean City, and others, were present.

CHIEF GOODERSON OF N. Y. F. D. TO BE HONORED BY ASSOCIATES

Will Have Served as Fire-Fighters Fifty Years on October 13—He is 71 Years of Age and is the Oldest Officer in Department

FREDERICK W. GOODERSON, dean of the chief officers of the New York Fire Department, will be feted by comrades and friends at Ebling's Casino in the Bronx on Tuesday evening, October 15th, in recognition of fifty years of active service as a fire fighter—a goal he expects to reach on October 13th. As that date falls on Sunday, the committee in charge of the informal dinner-dance selected Tuesday, October 15th, for a celebration which has the approval of Fire Commissioner John J. Dorman and Chief John Kenlon.

Chief F. W. Gooderson

In fifty years of service Chief Gooderson has never suffered a disciplinary penalty of any kind, and his departmental record is without blemish. He has served in every division of the department excepting the marine. At present he is on duty in the Bronx—the senior commanding officer of the 7th Division in charge of the fire fighters north of the Harlem River.

Chief Gooderson was seventy-one years of age on September 14th and despite that, he is active and alert and responds to the alarm bell with an agility and an enthusiasm that belies his age and seniority. Records at Fire Headquarters disclose that in ten years past he was absent only eighty-five days through illness, but most of that was due to an accident in which he strained the muscles of his back.

A native New Yorker of Holland Dutch ancestry, Chief Gooderson was born at the lower east side of Manhattan. He was a call boy on the floor of the New York Stock Exchange before the advent of the electric enunciator. As a youth he conducted a milk route with his brother Matthew who is now an insurance broker. Another brother, Thomas Gooderson, is a retired battalion chief. Their father lived to be eighty-five years of age.

Chief Gooderson was appointed a fireman when only twenty-nine days over twenty-one years of age. His uncle, Cornelius Van Cott, was a member of the Board of three fire commissioners who appointed him. In those days a fireman was paid $800 a year. He was at first assigned to Engine Co. 35 in East 119th street, Harlem, but not for long. He told his uncle that he desired to be in a busy downtown fire company like Engine Co. 33 on Great Jones street, then at Elm (now Lafayette) and Great Jones street, and within eighteen days he landed in the Great Jones street fire house itching for a big blaze.

The chief is a member of Anglo-Saxon Lodge No. 137, F. & A. M., and an organizer and trustee of the Fire Square Club.

The committee in charge of the testimonial dinner is headed by "Jerry" Daly, a fire buff, newspaper writer, and long a personal friend of the chief. Dr. J. W. Goldenkranz of the Bronx who is interested in the welfare of firemen as a hobby, is secretary of the committee. An honorary committee is composed of some of New York's most enthusiastic fire fans, such as Dr. Harry M. Archer, Honorary Deputy Chiefs Robert H. Mainzeer, W. W. Cohen and Manfred L. Neumoegen; Peter J. McGowan, secretary of the Board of Estimate and an inveterate fire buff, William H. Todd, another honorary fire fighter; Transit Commissioner Charles C. Lockwood; Judge Harry E. Lewis of Brooklyn; Michael J. Delehanty; Alderman Alford J. Williams of the Bronx; J. Francis Kiernan and Edward H. Levy.

On the active committee are Dr. George E. Bennett, Henry Loew, George E. Mullen, Deputy Chief John F. King, Battalion Chief William H. Cozine, Battalion Chief Hugh Halligan, Capt. Joseph L. Flannery, Lieut. Charles A. Hutchinson, Firemen Fred G. Boerke, and Thomas F. Blackburne; Michael Seelinger, retired battalion chief, and Retired Captain Jacob Cohen.

Bungalow Station Erected in Logansport, Ind.—A bungalow fire station has been completed in Logansport, Ind.

Program Railway F. P. Association

The annual meeting of the Railway Fire Protection Association is to be held this year at the Royal York Hotel, Toronto, Ont., Can., the dates being October 15 to 17. The program is as follows:

Tuesday, October 15, Morning Session—10 o'clock.
Address of Welcome, Mayor Sam McBride.
Address of President.
Address by Mr. Grant Hall, Vice-President, Canadian Pacific Railway Co.
Report of Executive Committee; Report of Auditing Committee, B. S. Mace, Chairman. Report of Publicity Committee, W. F. Hickey, Chairman.
Address by, Franklin H. Wentworth, Managing Director, National Fire Protection Association.

Entertainment for the Ladies

Afternoon Session—2 O'clock.
Report of Committee on Statistics, J. E. Fraser, Chairman.
Address by W. D. Robb, Vice-President, Canadian National Railways.
Report of Committee on, "Motor Transportation", George H. Scott, Chairman. Report of Committee on, "Storage of Records", J. L. Rice, Chairman.
Address by E. P. Heaton, Fire Marshal of Province of Ontario. Report of Committee on, Fire Losses in Rolling Stock. Report of Committee on, Hand Book, T. E. Chapman, Jr., Chairman.

Wednesday, October 16, Morning Session—10 O'clock.
Report of Committee on, Hazards Incident to Installation, Maintenance and Operation of Air Compressors, C. A. Thompson, Chairman. Report of Committee on, Grain Elevators, George A. Bryant, Chairman.
Address by J. Grove Smith, Fire Commissioner for the Dominion of Canada, Ottawa, Ont.
Report of Committee on, Fire Prevention Week Bulletin, deWitt Rapalje, Chairman. Report of Committee on, "Protection of Material in Storehouses, Material Yards, etc.," E. J. Reilly, Chairman.
Address by E. B. Berry, Superintendent of Insurance, Southern Railway System.
Address—Carbon Dioxide (CO_2) as a Fire Extinguisher, Howard M. Baird.

Afternoon Session—2 O'clock.
Address by A. R. Small, Vice-President, Underwriters Laboratories, New York, N. Y.
Open Discussion of Field Practice on Fire Protection and Prevention directed by E. Moore.

Thursday, October 17, Morning Session—10 O'clock.
Report of Committee on, Revision of Fuel Oil Report, E. L. Tallichet, Chairman.
Special Committee Reports in Connection with N. F. P. A. and other Committees.
Discussion on Automatic Alarms, Canadian National Railways.
New Business. Report of Nominating Committee and Election of Officers.

Termites Destroy Fire Hose

Even cotton, rubber-lined fire hose is not safe from the ravages of termites, colonies of blind, white ant-like insects that live underground and burrow in wood. There are many species distributed throughout the United States,

What a Colony of Termites Can Do to Fire Hose

A section of 2½-inch cotton, rubber-lined fire hose that had been eaten away. Note that only the cotton covering was damaged and that the rubber lining was not touched.

but the most damage is caused in the south and southwest sections.

The insects live on cellulose from either dead or living vegetation. They have even been known to burrow into bales of cotton, paper and leather.

There is no practical way of treating fabric hose chemically to prevent damage of this kind. Spraying or fumigation is not advised because the effects of such treatments are short-lived. The remedy is to prevent the termites from reaching the hose and since the pests live mostly underground, hose houses in infested areas should be raised well above the ground on concrete, stone or brick piers. Preferably, the woodwork should be treated with creosite since termites do not eat wood so treated.

The data contained in this article and the photograph is reproduced through the courtesy of the *Factory Mutual Record*.

A New Wrinkle in Fire 'Phones

Something new in the way of a portable telephone to be used in case of a break down in telephone service in company quarters has been developed by the New York Fire Department and has proven of value on Staten Island.

Should the telephone service be interrupted in the station, one clip of the portable telephone is placed on a terminal of the combination instrument, and the code 6-5 sent in on the Morse key. When the signal 2-3 is received from the dispatcher, the other clip of the telephone is placed on the proper terminal and the Morse key held down. In case no response is received, a man is sent to the nearest box to tap the nearest station signal 5-10.

Portable Telephone Comes in Handy During an Emergency

Upper—Sending a telephonic message through one of the new fire alarm boxes in New York City. Lower—Fire alarm box with door closed.

To use the telephone from an old alarm box, the open and inner doors of the box are opened. If the sounder in the box is operating, the fireman is not to plug in on the circuit until the sounder stops operating. There are three terminals in the back of the box. Counting from the left hand side, a clip is placed on the No. 3 terminal and the 5-10 signal sent by means of the telegraph key. When the 2-3 signal is received from the dispatcher, the other clip is placed on terminal No. 1, and the Morse key held down. Connections have been completed for telephonic communication.

To telephone from the new type of fire alarm box, both the inner and outer doors of the boxes are opened, and one clip placed on terminal No. 2, counting from the left-hand side. The signal 5-10 is sent by means of the key, and then when the 2-3 signal is received from the dispatcher, the other clip is placed on terminal No. 1. The key is held down.

It is important after calling the dispatcher to hold down the Morse key while talking, and to be sure to use the transmitter end of the telephone for talking. As a warning, the telephone should not be used during a lightning storm. As a safeguard from possible shocks, tape should be placed on the clips and the telephone.

The hand portable telephones are only to be used as an emergency measure—that is, a breakdown on the telephone line leading into quarters, when it is impossible to get a public telephone in the vicinity of the fire, or late at night when residences or stores in the neighborhood are closed.

A Correction—In the previous issue there was an article "Two General Alarms in Day at Atlanta." The fires occurred in Augusta, and not Atlanta, Ga.

Fountain City, Ind., May Buy Pumper—Fountain City, Ind., is considering the purchase of a 500-gallon pumper for the protection of the township, but the township's attorney stated the Indiana Township Fire Equipment Law of 1917 is faulty, and the contemplated order has been withheld. Fountain City has furnished free fire service to rural districts for a number of years. New apparatus is needed as most of the calls were from out of town.

Virginia Wants Firemen's Schools

Several topics of current interest were discussed at the meeting of the Virginia State Fire Chiefs' Association convention held in Lexington, Va.

A state law was suggested to aid the movement of standardizing hose and hydrant threads. The chiefs emphasized the need of a firemen's school where men engaged in fire-fighting could learn the latest methods and where they could become acquainted with the various tools and appliances used. It was pointed out that eighty per cent of the fire departments in Virginia were volunteer departments and that in order to reduce fire losses in the state, it is necessary that these men be given proper instruction.

The chiefs urged that insurance companies should be assessed from one to two per cent in order to support a fund to care for the injured firemen, widows and orphans of firemen. Such procedure, at present, is followed by the border states of Pennsylvania and North Carolina.

A booklet is being printed in which are listed the various activities of the association and the topics discussed at the meetings.

"Facts About Fire" Issued

The National Fire Protection Association, Boston, has issued a fire prevention week supplement called "Facts About Fire," that contains data of value to those in charge of Fire Prevention Week programs.

It contains brief articles by T. Alfred Fleming, chairman, N. F. P. A. Committee on Fire Prevention and Clean-Up Campaign; Sidney J. Williams, director, Public Safety Division, National Safety Council; Frank A. Fall, director of education and research, National Association of Credit Men; Paxton Mendelssohn, chairman, Fire Prevention Committee, Detroit Board of Commerce; and Harry E. Roethe, secretary, N. F. P. A. Committee on Farm Fire Protection, and George F. Lewis, deputy fire marshal of Ontario.

Courtesy, Utica Observer-Dispatch

Too Late for Fire Prevention

It contains suggested titles for fire prevention talks, and a few brief outlines for fire prevention speeches.

Fire Prevention Week comes, this year, October 6-12.

Westmont, N. J., Has New Fire House—A new fire house has been completed in Westmont, N. J., at a cost of $25,000.

HOW 7,000-ACRE CABIN COLONY IS GUARDED AGAINST FIRE

Employees Are Natives Trained in Forest Protection Including Backfiring—Only Three Fires Have Been Reported in Several Years

By DIRK QUAYNE

THE world's largest log cabin buildings and the largest single colony of separate log cabins is located at Lucerne, Maine.

Spread over an area of seven thousand acres of heavily wooded land of spruce, fir, cedar and hemlock trees, it can easily be seen that the attendant fire hazards are many indeed. Seasonal dry spells increase the danger of disastrous forest and grass fires, as do the gigantic wood-burning fireplaces which are included in each of the two hundred cabins.

And to these risks the fact that the nearest municipal department is located in the City of Bangor, twelve miles distant, and it would seem inevitable that this giant resort development would carry a high premium rate and be subject to innumerable small fires and even occasional "wipe-outs" of four million dollars worth of property.

Yet when the Main State Board of Underwriters made its inspection of the buildings and land, their recommendations were that only the normal insurance rate should apply. And the fire record over the period of three years in which the resort has been built is three alarms, all of which were covered completely in ten minutes each!

One of the chief reasons why so ordinarily hazardous a community commands low premium rates and extraordinary small number of alarms is the character of the workmen employed there. Out of a staff of several hundred gardeners, mechanics, carpenters, farm hands, and common laborers, etc., the majority are of Maine birth, and thus familiar with the dangers of forest fires, and accustomed to proper prevention and fighting. The logging crew, which is maintained constantly for clearing off lots and supplying the timber for the construction of the log cabins, is especially well acquainted with methods of trenching, backfiring, beating, etc.

The main reason, however, is of course the exceptional preventive and fighting apparatus with which the resort development is equipped. Every care has been taken to make high pressure water available at practically any point on the entire acreage.

Dotted about those main buildings, which would constitute the greatest loss if fire should destroy them, such as the hotel itself and the 100-car garage, are small log cabin huts. There are ten of these scattered over the grounds. Each contains 300 feet of 2½" regulation hose and nozzle, ready attached to water supply. The huts themselves are about eight feet high and of sufficient tapering diameter to enable easy access to the coiled hose and supply valve.

For covering fire which originates in the woods even to several miles back from the main road, a 1½ ton truck chassis is fitted with a reel of 300 feet of 1½" hose, easily connected with the main water supply valves in the cellars of any of the log cabins. Since over two hundred of these small residential private dwelling are spread over the large acreage, their individual water mains afford excellent and frequent supply points.

Lucerne is also singularly fortunate in the matter of its water supply. The source is a lake located above the level of the main group of buildings. This delivers an ordinary pressure of 260 pounds, which increases slightly with heavy rain. This unusually high head passes through three reductions for cooking, drinking and bathing, but its entire force is applied directly to the hose in the ten huts concentrated in the more thickly settled area.

Still a further aid to a low fire record is the able assistance rendered by the Forest Ranger Service of the United States Government. Two look-out posts are stationed on nearby mountains, and their personnel cooperates in every way possible with the local hotel ad development management.

A fire is usually reported and covered in this fashion: When the government ranger in his tower "spots" the slightest wisp of smoke anywhere in Lucerne, he immediately telephones the approximate fire location to both the main office of the hotel, to the lock shack in which the two State motorcycle officers are stationed, and also to the other Forest Ranger station ten miles distant. The truck of hose is immediately started on its way, and the motorcycle police start rounding up workmen on the grounds. These men then follow the truck in cars and offer the necessary manpower for covering the conflagration. They are natively adept at the quickest and most efficient methods. It is in this manner that the only three alarms on record have been extinguished within the space of ten minutes. When the fire is out this telephone information is then relayed back from one of the nearest cabins to both ranger posts and to the hotel.

As a further aid to rapidly conveyed alarms, a small motor driven siren is being erected on a pole in the rear of the motorcycle barrack cabin. This will have a range of five miles, and in the future will be sounded the moment an alarm of fire is turned in by the forest rangers or anyone else. A system of signals will also be devised to notify those in the main section of the resort community of the progress of the fire.

When the vastness of the area to be covered in an emergency, and the combustible quality of its resinous woods is considered, it is remarkable that the protection offered is as efficient as it is. Seven thousand acres is an area comparable to that of the city of Portland, Maine. The training of a large number of men to act rapidly and expertly, and preparedness in every detail of course, account for the safety which the entire village of Lucerne enjoys.

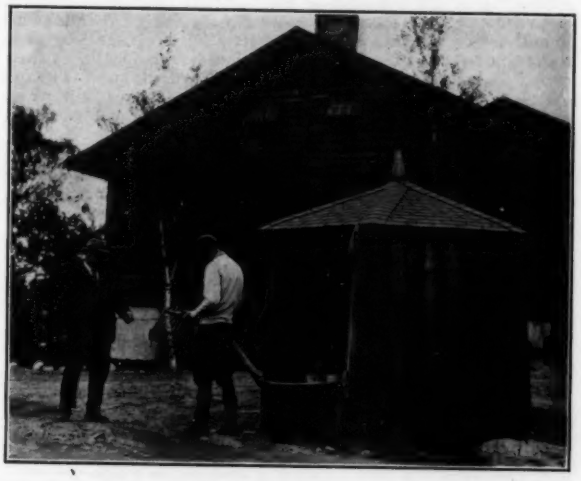


Photo by Blackinton

One of the Many Huts in Which are Stored Fire Hose. The Logs Cabins are in the Background.

Bird W. Spencer Presented With Watch

Gen. Bird W. Spencer of Passaic, N. J., was elected president of the New Jersey State Firemen's Association for the fifty-second consecutive term at the opening session of the fifty-second annual meeting of that organization held in Atlantic City, N. J. He was presented with a wrist watch by the association.

The association voted to set aside $5,000 each year for relief to incapacitated members and veterans of the war. The convention considered the question of liability of fire apparatus drivers who have accidents while performing their regular duties. As matters stand now, such a driver is held legally liable for negligence.

Governor Morgan F. Larson of New Jersey attended one session and was conducted to the platform. He explained that he did not come as the chief executive of the state but as a fellow fire-fighter for he is still a member of a fire company he joined many years ago.

The officers re-elected are Bird W. Spencer, Passaic, president; T. Howell Johnson, Bloomfield, treasurer; William Exall, Newark, secretary; Evan Benners, Morristown, first assistant secretary; Ralph G. Holman, New Brunswick, second assistant secretary; George Everitt, Hackensack, financial secretary.

One member was elected from each of the counties in the state to serve as vice-president.

Those elected to serve as managers of the Firemen's Home are Frank M. Cunningham, Linwood; Albert R. Lembeck, Demerest; George L. Mitchell, East Orange; Dr. Carl T. Robers, Swedesboro; William Exall, Newark, and Clarence E. Chamberlain, Ogdensburg. It was voted to hold the next convention in Atlantic City.

Crowley, La., to Receive Pumper—Some time this month, Crowley, La., will receive its new pumper.

ARSON WILL BE COMMITTED AS LONG AS IT IS PROFITABLE

Should be Better Contact Between Fire Chiefs and Insurance Brokers—War Must be Waged to Apprehend the Guilty Persons

By THOMAS J. MCCARRICK,
Chief of Fire Department, Revere, Mass.

THE established policy in this city to prevent incendiary fires is to have fire officials start an immediate investigation in cooperation with local and state police. These investigations start immediately after the fire has been brought under control. While the fire is in progress, the local police are checking up on the whereabouts of those interested in the building or the business conducted therein. A fire detail is left at the building with orders to allow no unauthorized persons to enter until after evidence and photographs have been secured. The building inspector is then called in to appraise the value of the building. This is checked up with the insurance company to ascertain when the insurance was placed and the amount of same. This clears up the matter of over-insurance.

The tax collector is then consulted and as an example we may find that the previous year's taxes have not been paid and the property is about to be sold for non-payment of said taxes. A check-up on the mortgages reveals other financial difficulties.

While all this investigating is going on, the fire prevention inspector is quietly conducting an inquiry in the vicinity of the fire in an endeavor to secure evidence. At the close of the investigation, an inquest is held and all the witnesses are called upon to testify under oath. If the evidence warrants prosecution, the entire matter is referred to the district attorney.

A constant war must be waged against those who resort to this nefarious crime, and we exercise every effort to apprehend the guilty parties. Thus far we have met with considerable success, considering the many difficulties one encounters in order to present a strong circumstantial case that will satisfy a jury beyond a reasonable doubt.

Space will not permit going into all the details on this question, even though a lengthy answer is necessary to cover the essential points, which, if inaugurated, would, in my opinion, reduce to a minimum the number of incendiary fires we are obliged to contend with.

There is a small percentage of pyromaniacs who set a fire to avenge a wrong or to cover another crime. There is a great army of paid and unpaid felons who set fire to a building in order to defraud the insurer. If it was not profitable to set fires you can rest assured that this type of fire would be hardly heard of. Therefore, the wholehearted cooperation of the insurance companies in the matter of adjustments and over-insurances will prevent many such fires. At present there is not sufficient contact between the fire chiefs and the insurance brokers.

Each act, whether it be good or evil, is prompted by some motive. The motive in the case of the arsonist generally evolves from business depression and over-insurance. It is my concluding opinion that perfect co-ordination between the fire chief and the insurer is very essential if we hope to wage a successful campaign against incendiary fires. Just as long as excessive insurance is granted we will have incendiary fires.

Odd Shaped Cycle Serves as Department Ambulance

A motorcycle of special and unusual design has been added as emergency equipment for the Coblenz, Germany, fire department. It is fitted with a cot and the cycle has been built for speed.

Flammable Liquids—Their Protection

(*Continued from page* 850)

mable liquids through the congested areas of cities and towns even though it may not be within the scope of this ordinance. This is a problem with which every fire chief is being confronted and I believe it can be solved by conference with the officials of oil distributing stations. The petroleum industry are no more desirous of accidents such as have recently occurred in Pittsburgh and Boston than are the fire chiefs and I am sure they will be willing to consider routing trucks away from congested areas where possible.

Now to get back to our subject. The regulations governing filling stations are at present included in an appendix. This is due to the fact that they have been only tentatively adopted by the Association as a whole and are subject to possible changes. They will eventually be incorporated as part of chapter five and as such cover the hazards incidental to filling stations not covered by sections on storage and handling.

Specific Conditions Relative to Paints and Varnishes

Chapter six is intended to cover those specific conditions relative to paints and varnishes not covered by general provisions of other chapters and proper reference is made in the sections of this chapter to other sections. Chapter seven provides for penalties for violations and for the proper legal adoption.

Ordinance May be Adopted in Full or in Part

As I previously remarked, it is the purpose of this ordinance to give the necessary authority to control the hazard of all flammable liquids. It may be adopted in full or in part, being workable from a practical standpoint in its entirety as it is, or forming a guide in framing a local ordinance. Sections of it may also be incorporated in other ordinances relative to garages, dry cleaning establishments, paint shops, etc.

That this ordinance is practical is demonstrated by the fact that its provisions, in full or in part, have been adopted by the following cities in the past few years. This is not a complete list by any means, but rather a representative group.

Hoboken, N. J.	Detroit, Mich.
Richmond, Va.	Duluth, Minn.
Wilmington Del.	State of Illinois
Pittsburgh, Pa.	State of Indiana

(From a paper read before the annual convention of the Annual New England Association of Fire Chiefs.)

Souderton, Pa., Houses New Apparatus—A 600-gallon Seagrave pumper and a 500-gallon Hale pumper were placed in service in Souderton, Pa., with an official ceremony. The carnival was held in the evening.

Ridgeley, Md., Erects New Fire House—A two-story fire station is being erected in Ridgely, Md. It will have an auditorium, and a kitchen. It is to be completed by December 1.

FIRE DEPARTMENT ACTIVITIES

South Bend, Ind., to Erect Fire House—A fire station costing $45,000 will be erected in South Bend, Ind.

Fire House Opened in Natrona, Pa.—A new fire house was formally dedicated in Natrona, Pa.

Fire Alarm Urged for Anderson, S. C.—A fire alarm system is being urged for Anderson, S. C.

Russell, Ky., is to Buy Apparatus—Russell, Ky., is contemplating the purchase of fire apparatus.

Niles, O., Appropriates Money—A fund of $8,000 has been set aside in Niles, Ohio, for the purchase of fire apparatus.

Mason City, Ia., Receives Pumper—An Ahrens-Fox pumper has been delivered to Mason City, Ia.

Burlington, Ia., to Have a Ladder Truck—A new ladder truck will be delivered to Burlington, Ia.

Lambertville, N. J., Considers Rural Fires—Lambertville, N. J., is considering the question of rural fire protection.

Bennettsville, N. C., to Buy Pumper—A 500-gallon pumper is to be purchased soon by Bennettsville, N. C.

Mt. View, Cal., to Have Fire House—Ground has been broken for a new fire station in Mt. View, Cal. The building will be of brick and concrete.

Station Completed in Green Bay, Wis.—A new fire station has been completed in Green Bay, Wis. The work was finished ahead of schedule.

Apparatus Ordered by Evansville, Ind.—A 1,000-gallon pumper and a city service truck have been ordered by Evansville, Ind.

El Paso, Tex., to Have New House—Plans are being prepared for a new fire house to be erected in El Paso, Tex. A tower will also be built.

Apparatus Delivered to Tylerdale, Pa.—Boyer fire apparatus has been delivered to Tylersdale, Pa. It carries two 80-gallon chemical tanks.

Paid Department Wanted in Union—Eleven petitions are being circulated in Union Township, N. J., asking that a paid fire department be started.

Postville, Ia., Has New Apparatus—New fire apparatus purchased at a cost of $4,000, has been delivered to Postville, Ia.

Reading, Pa., May Open Fire School—Reading, Pa., is given serious thought to the suggestion that a fire school be established to instruct the volunteer firemen.

Black Creek, Wis., to Buy Apparatus—Black Creek, Wis., is to purchase new fire apparatus. Eighty farmers have contributed thirty-five dollars each.

Middlebury, Vt., May Erect Fire House—A meeting has been held in Middlebury, Vt., to consider the erection of a fire station.

Lake George, N. Y., to Buy Pumper—At a recent election, Lake George, N. Y., voted to spend $18,000 for the purchase of fire apparatus.

Toledo, Wash., May Buy Pumper—The council of Toledo, Wash., is considering the purchase of a truck and pumper, as well as the formation of a fire zone.

Peekskill to Stop Apparatus from Parading—The trustees of Peekskill, N. Y., have issued an order that fire apparatus is not to participate in out-of-town parades.

Concord, Cal., to Consolidate Districts—Concord, Cal., wants to consolidate the rural and the city fire districts. Chief Vargus has recommended that a new fire station be built.

Rural Department Planned for Sunnyvale, Cal.—A rural fire department has been planned for the districts adjoining Sunnyvale, Cal. A committee has been appointed to look after all the details.

Johnson City., Tenn., to Have Fire House—Plans have been completed for a new fire station to be erected in Johnson City, Tenn. Bids for the work will be invited soon.

Pulaski, Pa., to Improve Department—Officers of Pulaski township, Pa., have taken over the fire department which formally was an independent organization. The department will be improved.

Fire House Opened in Pittsburgh, Pa.—Engine No. 53 house has been officially placed in service in Pittsburgh, Pa. There was a parade during the day and a dance in the evening.

Tonawanda, N. Y., Motorized—With the acquisition of a new motor driven ladder truck, the last piece of horse-drawn fire apparatus in Tonawanda, N. Y., will be mustered out of service.

Wisconsin Firemen Consider Pension Laws—The matter of pensions was discussed at the 1929 convention of the Wisconsin State Paid Firemen's Association held in Kenosha, Wis. Many pensions plans were considered.

E. Weymouth, Mass., Delays Action—Action on the construction of a new fire station in East Weymouth, Mass., has been delayed because the bids received were in excess of the amount estimated. The architect's estimate was $75,000.

Apparatus Damaged at Underwriters' Test—While being tested by the New England Inspection Bureau, one of three pieces of apparatus delivered to Hartford, Conn., drew up a piece of iron into the pump and damaged it. The other units satisfactorily passed the tests and were accepted.

Schuylerville, N. Y., Resign—Thirty firemen of Schuylerville, N. Y., headed by Chief Glass, decided to resign from the fire department and they gave the town two weeks' notice. It is said that officials interferred with the men while fighting a fire. The town will form a new fire company.

Yelton, Ex-Chief of Laramie, Wyo., Dead—W. E. Yelton, formerly chief of Laramie, Wyo., died in a Denver hospital. He resigned as head of the department in 1927. He held that office since the paid department was established ten years ago. Mr. Yelton saw service in Manila during the Spanish-American war.

Plans Made for Fire Prevention—Chief E. E. Cureton of Owensboro, Ky., has completed plans for the observance of Fire Prevention Week. The Chamber of Commerce, the Lions and Rotary Clubs have co-operated. There will be a joint meeting of the civic clubs at which F. Paul Anderson, dean of the University of Kentucky, will be the speaker.

Stowe Township Must Pay for Accidents—The Workmen's Compensation Board ruled that the families of the three volunteer firemen and seven volunteers are to be awarded damages by Stowe Township, Pa. Firemen of the township were summoned to fight a fire at the Heidelburg plant of the Carnegie Refining Company. In going to the fire, the apparatus left the road, killing three firemen and injuring seven others.

Philadelphia Host to Visiting Buffs

Members of the Atlantic City 2nd Alarmers Association were guests at a dinner arranged in their honor in Philadelphia, September 28, by members of the Philadelphia 2nd Alarmers Association. Among those present were Captain Blackburn of the Atlantic City association; Captain Hunt, Engine Co. No. 8, Camden, N. J., Harry Kahn, influential Philadelhpia business man who served as toastmaster; Chief Ross B. Davis, Philadelphia; Battalion Chief George Ferrier, 4th Battalion; Tom Tafte and Tom Farley, ex-chiefs of the Philadelphia 2nd Alarmers.

During the dinner, no fire alarms disturbed the party. After over two hours of feasting and speeches, the guests and hosts returned to the 2nd Alarmers Readquarters, two blocks away. Here the members told stories of difficult and interesting fires, and whiled away two more enjoyable hours. As the guests had a sixty-mile ride to Atlantic City, the meeting was adjourned.

The trip was made by bus. The visitors departed to the tune of "Till We Meet Again." Twenty-five members were present from Atlantic City and thirty from Philadelphia.

The Philadelphia 2nd Alarmers Association was organized in December, 1921, to bring residents of the city together who are interested in the welfare of the uniformed members of the Bureau of Fire, and to serve coffee and sandwiches at all second alarm fires, regardless of the weather.

EDWARD H. SPRANGERS.

PROPOSED IMPROVEMENTS

Bellrose (Mail Floral Park) Nassau Co., N. Y.—A motion was introduced at recent meeting that a proposition be voted upon to erect a fire station at cost not to exceed $10,000.

North Tarrytown, Westchester Co., N. Y.—Village Board has authorized an issue of fire apparatus bonds to the amount of $13,000.

Greensboro, Guilford Co., N. Car.—Ordinance has been passed authorizing the issuance of fire alarm bonds to the amount of $16,000.

Wauseon, Fulton Co., Ohio—Fire department requested Village Council to purchase new piece of apparatus, according to reports.

Cumberland (Mail Manville) Providence Co., R. I.—Reports state funds will be raised for purchase of fire equipment.

Weymouth, Norfolk Co., Mass.—At recent town meeting it was voted to appropriate $10,700 for new pumper for Ward 5, according to reports.

Freehold, Monmouth Co., N. J.—Borough Council voted to expend $9,500 for purchase of a 750 gal. pumper for Steamer Co. No. 2, according to reports.

Seaside, Clatsop Co., Oregon—L. C. Henrys, Chief of Volunteer Fire Dept. recommended the purchase of an addtiional piece of apparatus.

Haledon, (Mail Paterson) Passaic Co., N. J.—Volunteer fire department will be in the market about the first of the year for a 600 gal. pumper with booster tank.

Akron, Summit Co., Ohio—The bond issue for $12,000 for purchase of East Market St. site for East Akron fire station has been passed. John Mertz, Chief.

Easton, Talbot Co., Md.—Reports state City Council discussed the issuance of bonds to the amount of $30,000 for purchase of fire equipment and erection of new fire station, at recent meeting.

Old "Jumbo" Mustered Out of Service

The retirement of the old "Jumbo," so called propellor fire engine from the service of the fire department at Hartford, Conn., is worth more than merely a passing notice. In these days when motor-driven fire apparatus is universal, even in small communities, it is scarcely possible to realize how notable it was considered a quarter century and more ago that Hartford actually employed two steam propelled fire engines.

Hartford became distinctive in fire fighting the country over. Old "Jumbo" was the larger of the propellers and one of the biggest fire engines ever built. It and its companion lumbered through the streets with an almost terrifying noise as they responded to alarms. Not only did they belch fire and smoke from their stacks but not infrequently they left a trail of fire behind them requiring fire department attention for the sparks from their stacks often set awnings ablaze.

In the days when fire apparatus was drawn by galloping horses, often hitched three abreast, the response to a fire alarm was a colorful and exciting scene. In Hartford it was made the more picturesque by the appearance of horseless engines moved by the same steam power utilized for pumping water after reaching the scene of the fire.

They were, in appearance at least, a cross between a locomotive and a steam roller. A fireman grasping a huge horizontal wheel steered them to the fire and in the case of a locomotive, the engineer controlled the locomotive power.

In the day when the automobile was scarcely dreamed of they represented a high degree of progressiveness in fire-fighting facilities. No one old enough to recall their service can see the last of them pass out of the picture without experiencing a feeling of regret.

THOMAS F. MAGNER.

Instructions on Defective Flue Fires

A number of mimeographed lessons have been issued by the fire department at Wyckoff, N. J., and distributed to the firemen. They are issued through the captain's office. The following is a lesson on how to fight fires that develop in defective flues:

Fires in defective flues are a serious hazard. Numerous fires occur from this cause and are often not discovered until the entire building is involved, creating considerable loss, due to the extension of the fire into concealed spaces and often found difficult to locate and extinguish same. Defective flues are caused from poor construction, mortar or bricks becoming loose, settling of the chimney, which will cause cracks and openings, and where metal flues are used, corrosion eating away the metal.

The fires from defective flues are generally caused by sparks finding their way through an opening, or defect, in the flue, and thus setting fire to the adjacent walls, partitions ceiling, etc.

Extinguishing fire in defective flues is accomplished practically the same as in chimney fires, except when the fire communicates itself to a wall, partition ceiling, etc. All the burned laths and plaster should be removed, as well as all charred studding, boards, etc. This is not only a precautionary measure but presents an opportunity to thoroughly inspect and examine the burned area for any sparks being left, and you can reasonably be sure that this method will prevent any rekindling.

Further care should be exercised in defective flue fires, in addition to the above, in cases where the flue is carried up on a party wall. The premises on both sides of the wall should be examined. In several cases, fire has been found in building on either side of the wall.

The main point of fighting a flue fire is that water should not be used. The outfit we have on the wagon, i. e., fire extinguishers is thoroughly reliable but a small bag of common salt is always useful in both chimney or flue fires as the chemical reaction brought about by the burning of the salt will smother the exposed flame and fumes of the chemical (salt burning) will enter crevices that cannot be reached by a chemical stream.

Respectfully submitted,

WM. E. SCOTT,
Captain.

Dr. Archer Ordered to Keep Away

A certain ambulance surgeon in New York City has learned something concerning resuscitation and also just what Dr. Harry Archer, honorary fire department surgeon, looks like.

Dr. Archer arrived at a second-alarm fire in East Seventh Street where several persons were overcome. He found young and inexperienced hospital internes standing about doing little, if anything. Dr. Archer stooped beside a woman who had been carried out of the tenement, and as he did so, a female surgeon admonished him:

"Do not disturb that poor woman—she is dying."

"Well, what are you doing for her?" asked Dr. Archer.

In his turn-outs and boots, he becomes divorced from whatever professional appearance a doctor is supposed to have.

Without waiting for a reply he called for an inhalator and asked that the Rescue Company be released in his charge. With the aid of experienced firemen, treatment was given "the poor woman." Two of the four women who received treatment from Dr. Archer and his firemen assistants, are alive today.

Covina, Cal., to Have Fire House—A combined fire house and city hall will be erected in Covina, Cal. It will be a two-story building.

Troy, N. Y., Has Drill Tower—A firemen's drill tower has been completed in Troy, N. Y. Men will be trained at this tower in connection with the zone school established.

Little Neck to Open New Fire House—The New York Fire Department expects that the new fire house being erected to serve Little Neck and Douglaston will be completed some time in October.

CONVENTION DATES

Oct. 1-3—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 50th Annual Convention, Hotel Roosevelt, Pittsburgh, Pa. Secretary, Charles E. Clark, P. O. Box 217, Wayne, Pa.

Oct. 15-17—RAILWAY FIRE PROTECTION ASSOCIATION. Annual Meeting, Toronto, Can., Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio Railroad, Baltimore, Md.

Oct. 21—SOUTHEASTERN FIRE CHIEFS ASSOCIATION. 2nd Annual Convention, Tutweiler Hotel, Birmingham, Ala. Secretary, Chief H. E. Whitener, Hickory, N. C.

Oct. 22-25—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 57th Annual Convention, Hotel Tutweiler, Birmingham, Ala. Exhibits City Auditorium. Recording Secretary, Chief James J. Mulcahey, Yonkers, N. Y.; Executive Secretary, Jay W. Stevens, 113 Merchants Exchange Bldg., San Francisco, Cal.; Chairman, Exhibit Committee, Chief Selden R. Allen, Brookline, Mass.

May 12, week of, 1930—NATIONAL FIRE PROTECTION ASSOCIATION. 34th Annual Meeting, Atlantic City, N. J. 1931 Convention probably to be held in Toronto, Can. Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

May 14, 1930—DEL-MAR-VA. VOLUNTEER FIREMEN'S ASSOCIATION. 1st annual convention, Cambridge, Md. Secretary, J. Emory Parks, Cambridge, Md.

June, 1930—EASTERN ASSOCIATION OF FIRE CHIEFS. 3rd Annual Convention, Baltimore, Md. (Exact date to be decided later.) Secretary, Ex-Chief T. Howell Johnson, Room 602, Chamber of Commerce Bldg., Newark, N. J.

May 26-29, 1930—KANSAS STATE ASSOCIATION OF FIRE CHIEFS, STATE FIREMEN'S ASSOCIATION and FIRE SCHOOL. Respectively, 14th, and 43rd Annual Convention and 2nd Annual Fire School, Salina, Kan. Secretary, Chief K. D. Doyle, Wamego, Kan. Secretary Firemen's Short Course Committee, E. J. Stewart, Kansas Insp. Bureau, 701 Jackson St., Topeka, Kan.

Sept. 24-25, 1930—MISSOURI STATE FIREMEN'S ASSOCIATION. Annual convention, Trenton, Mo. Secretary-tresaurer, M. J. Mulvoy, St. Louis, 3500 S. Grand Boulevard, St. Louis.

FALSE ALARMS

Drawing by "Art" Espey

Fire Department Terms Explained—"A Line from a Booster"

NO SAMPLES NEEDED

The convention had ended and the exhibits dismantled. This salesman had only a package of signs and his brief case which contained sales literature. The porter at the exhibit hall asked the salesman:

"Where is your trunks, sah?"

"I use no trunks," replied the salesman.

"But I thot you wuz one of these traveling salesmen."

The salesman believed that here was a fine chance to have some fun at the expense of the porter.

"I am a traveling salesman, but I sell brains, understand? I sell brains?"

"Excuse me, boss, but youse the furst fella that's been here who ain't carryin' no samples."

HELD TO HIS PROMISE

The fire apparatus salesman received a long distance call from a town where a ladder truck had just been delivered.

"Didn't you claim when you sold me this car that you'd replace anything that broke or was missing?"

"That's right," replied the salesman. "What is it?"

"Well, I want four front teeth and a collarbone."

An Ohio girl is reported to have set fire to the house of a suitor. Her idea was to watch his escape and observe what sort of a taste he had in pajamas.

YOUR MOVE

The man at the desk was somewhat out of sorts. The phone rang and a cheerful voice inquired:

"What number is this?"

"You ought to know. You called it."

WELL PLANNED

Some one noticed that just after the meeting of the company broke up, and the fellows went into the recreation room, Sandy always sat on the piano stool instead of grabbing a nice easy chair.

And so Sandy was asked:

"Why do you always sit at the piano? You know you can't play a note."

"But neither can any one else while I sit here."

According to our experience, about all a standing committee ever does is to sit.

HE FOUND ONE

The station up on the hill was being redecorated, and the contractor, a rather mean type, sent a young lad to the place with a wheel barrow loaded with tools. It was evident that the load was too heavy for the boy. A kind passerby offered to help.

When they arrived at the top of the hill, the stranger mopped his brow.

"It's an outrage to send a lad like you out with that," he said. "Why didn't you tell your employer it was too heavy for you?"

"I did," replied the boy, "but he said, 'Go on, lazy. You're sure to find some idiot on the way to give you a hand.'"

Most of the time it is quite a relief to get back to where you were so glad to get away from.

EXPERIENCED

A woman had been called to the stand to testify as a witness of the crash between the apparatus and the street car. After the cross examination the attorney remarked:

"I hope that I haven't troubled you with all these questions."

"Not at all," remarked the lady sweetly, "I have a small boy of six at home."

A poker face is when you have most of the chips on the table stacked in front of you and still don't smile.

SILENCE PLEASE

Perhaps the motorist did not hear the traffic siren that warned of the approach of fire apparatus, but he did see the traffic cop hold up a white-gloved hand and glare at him in a most terrifying manner. Of course, an unappreciated lecture followed, and the car was then ordered to move on.

"What did you say to the traffic cop?" a friend asked.

"Nothing," was the reply. "When a traffic cop starts a talk, I'm just a good listener."

One advantage of the smaller paper money is that a man can get more of it in his watch pocket where his wife never looks.

NOT A CHANCE

To be the wife of a chief, once the golf craze had reached the town, was not the best thing possible. During working hours he was away from home, and during his hours off, he was on the links, practicing. When he picked up the golf bag on Sunday to go out, his wife could stand it no longer.

"Say, do you know anything else but golf—golf—golf? Why if you spent one Sunday at home, I think the shock would kill me."

"It won't do you any good to talk like that," replied the husband. "I refuse to be bribed."

UNROMANTIC

The men were grouped near the open door of the station to watch the steady drizzle of a fall rain. In the group was one who hoped to be a writer some day.

"Ah, the beautiful rain, pattering so rhythmically on the tree tops, and filling the air with multidudinous shining arrows—by the way, what does it suggest?"

"Well, for one thing if Murphy forgot to close the windows in the dorm, and my bed is wet, there is going to be murder."

PROPERLY INTRODUCED

The shiny roadster took a notion to stop just in front of the department repair shop. A mechanic who saw the motorist in a quandry called out:

"Just a minute, and I'll help you."

He went into the shop for some tools and then approached the car in which was seated an attractive lady.

"Before you start in, let me acquaint you with my trouble," the motorist said.

The mechanic doffed his hat and turned to the lady:

"Pleased to meet you, ma'am."

PROGRESS

The mayor phoned the chief for certain papers, and the chief in turn looked for the clerk to unearth them. But there was no sign of the boy.

"Damn it," shouted the chief, "I don't like this new style of young men going without hats."

"Why not?" asked another in the office.

"In the old days if I wanted somebody and his hat was not on the rack, I knew he was out, but now there is nothing to show."

The Round Table

(*Continued from page* 856)

here and we have had very little hydrant trouble of a serious nature during my eighteen years as chief.

R. E. Holcomb, Chief, Olympia, Wash.: The water department inspects the fire hydrants here. This is done twice a year. In case minor repairs are needed, they are repaired at the hydrant. If big repair jobs are necessary these are done at the shop and another hydrant is placed in service. We have several makes of hydrants but so far I have had very little trouble as the water department takes very good care of them.

S. D. O'Conor, Chief, Beaumont, Tex.: The water department inspects fire hydrants twice a year. Members of the fire department make inspections every two months. Fire companies inspect the hydrants in their district one time and the next time they inspect those in an adjacent district. This familiarizes them with the location of every hydrant.

Any defective hydrants are reported to the water department and repairs are made at once. A card index is kept of all hydrants. These cards show the condition of each hydrant, how many times each one has been out of service and the reason for taking them out of service.

Chas. H. Fuller, Chief, Pawtucket, R. I.: The water department inspects all fire hydrants in this city once a year. If the fire department finds any defective hydrants in the course of performing work at fires, they report same to the water department and repairs are made at once.

John H. Monroe, Chief, Savannah, Ga.: The water department had a hydrant inspector who takes care of the inspecting of all hydrants. Continuous inspections are made and where possible, the inspector, with the aid of a helper, makes minor repairs.

When serious defects are found, the superintendent of repairs is notified and the hydrant is put in working order.

E. F. Reed, Chief, Middletown, Ohio: All fire hydrants in this city are taken care of by the water department. Inspections are made regularly every six months. Persons finding defective hydrants report same to the chief and he in turn notifies the superintendent of water works. When a fire company is notified that a particular hydrant is out of use, this information is posted on a bulletin board in each engine house.

Sam Lindsay, Chief, Marshall, Tex.: I take care of the inspecting of fire hydrants in this city. When a hydrant is found to be defective, the City Manager is notified and the necessary repairs are made. In this way hydrants are kept in working order at all times.

R. J. Scott, Chief, Los Angeles, Cal.: Our fire hydrants are inspected by members of the engine companies. These inspections are made every month. In the event of a hydrant being defective, a report is promptly made to the Bureau of Water and repairs are made by them.

Wm. D. Horne, Chief, Millbury, Mass.: The water company takes care of the fire hydrants in this city. Fire hydrants are inspected once a month and in the event of any defects being found I am immediately notified. I am also informed when repairs have been made and the hydrant is again ready for service. If a hydrant does not work properly at a fire we notify the water company and this is taken care of at once. We have certainly received very good service in the matter of keeping fire hydrants in working order.

H. J. Francis, Chief, New Brunswick, N. J.: Fire hydrants are inspected by employees of the water department. Competent men are assigned to make daily inspections to see that the hydrants are in perfect working condition. When a hydrant is found to be defective, the water department is notified and repairs are made. The water department has men ready to make repairs at any time, day or night.

J. J. Powell, Chief, Griffin, Ga.: Members of the fire department inspect the hydrants in this city twice a year. A detailed report of these inspections is sent to the superintendent, and a copy of same to the city Manager. When defective hydrants are repaired I have another inspection made. I believe by having members of the fire department inspect the hydrants they are kept familiar with their location and condition.

Peter Beckerle, Chief, Danbury, Conn.: The city water department inspects the fire hydrants here. This inspection work is done every two months except in the cold weather when it is done once a week to prevent hydrants from freezing. Defective hydrants are reported to the water department and the necessary repairs are made. The fire department is also notified of defective hydrants.

Chris W. Noll, Chief, Poughkeepsie, N. Y.: The board of public works takes care of the inspecting of fire hydrants. This is done once a year, just before the extreme cold weather starts. All hydrants are opened to see that they are working. They are oiled and the packings renewed. Defects are reported to the Board of Public Works and the needed repairs made immediately.

A. R. Cumming, Chief, Houlton, Maine: The city has a crew of men to inspect the entire water system. Inspections are made daily in the colder weather and weekly during the summer months. In the event of a hydrant being defective, the city immediately sends men to repair the same. We certainly receive excellent co-operation from the water department.

W. S. Knight, Chief, Salt Lake City, Utah: The water department has charge of inspecting hydrants. They are inspected every six months. Defective hydrants are reported to the water department immediately.

G. A. Wood, Chief, Niagara Falls, N. Y.: The water department is continually inspecting the hydrants in this city. If any are found defective they are repaired at once by the water department who always sends out men promptly.

A. S. Warren, Chief, Dodge City, Kans.: The water works superintendent has charge of the inspecting of fire hydrants. This work is done quarterly. Defective hydrants are removed immediately and replaced with new or repaired hydrants that have been tested. All repair work is done by the water department.

F. Schaller, Chief, Port Huron, Mich.: The department of public works has men to inspect the hydrants. In the winter two men are sent around to see that the hydrants are not frozen. In the summer they are flushed about six times. All repairs are attended to by the water department as fast as discovered.

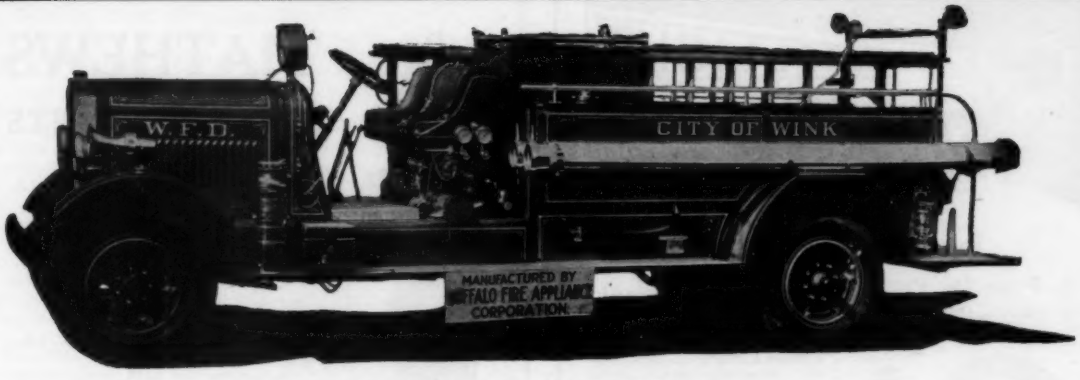
J. T. Maxwell, Chief, Cadillac, Mich.: The Consumers Power Company owns the hydrants in our city. They certainly keep them in good condition. In the winter the hydrants are inspected almost daily. If anything is wrong it is immediately repaired.

C. J. Murphy, Chief, Janesville, Wis.: The water department inspects all fire hydrants in this city. This is done once a year. When a hydrant is broken or defective, the water department notifies us of the fact. We are again notified when it is put back in service again. New hydrants replace old ones and when this is done the water department notifies us of the fact.

J. F. Healy, Chief, Denver, Colo.: The water department has men who inspect the hydrants once a year. Any defects noticed are immediately repaired or if necessary the hydrant is replaced by a new one. We have no

New Fire Escape Demonstrated in England

A new fire escape was recently demonstrated by the inventor in Birmingham, England. The invention consists of an ingenious braking device whereby the person being lowered to the ground can control the speed of descent. The inventor is here shown explaining the device to members of the Birmingham Fire Department.



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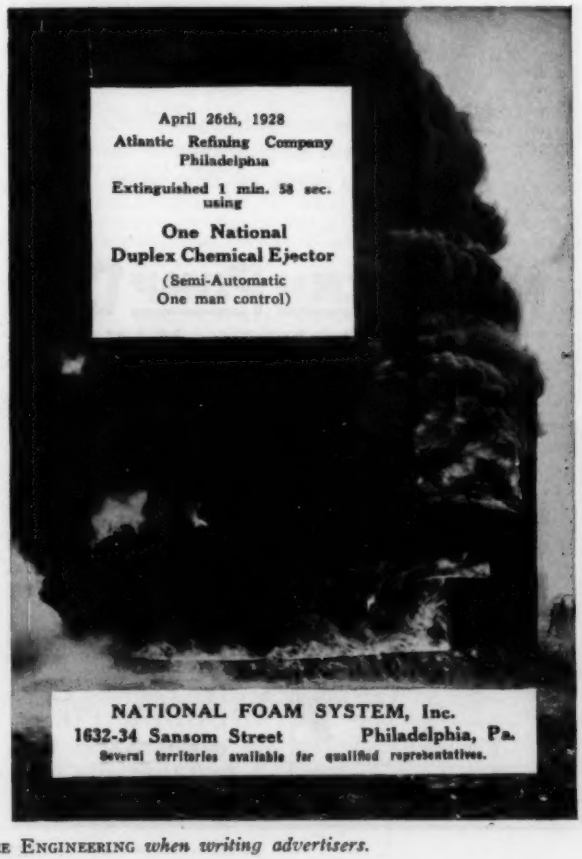

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complaint on this score as our hydrants are always kept in good working order.

F. R. Graham, Chief, Corvallis, Ore.: The city water department inspects the fire hydrants every two months. Repairs are taken care of immediately whether they discover the defects or whether they receive notice from us that repairs are needed. Hydrants are always kept in first class condition.

C. E. Foster, Chief, Astoria, Ore.: Hydrants are inspected by the fire department. Men are detailed by the chief to do this work. They are sent out four times a year at which time all hydrants are repainted. In the event of defects being found, they are immediately reported to the superintendent of water works and men are sent out by him to take care of the repair work.

H. P. White, Chief, Groton, Conn.: As the water system is owned by the borough of Groton, all hydrants are inspected by that department. Any defective hydrants discovered are reported immediately to the superintendent of water works and the repairs are made at once.

Fred. Peabody, Chief, Albion, Mich.: The water department inspects fire hydrants twice a year. If any are found to be defective, they are repaired at once by the water department.

Chief of Fire Dept., Winton, Pa.: The fire chief takes care of the inspecting of fire hydrants. Inspections are made every week.

James A. Schooley, Chief, Medina, N. Y.: The superintendent of water works and the chief of fire department inspect the fire hydrants. This is done four times a year. Repairs are made at once when they are needed.

B. L. Warlick, Chief, Jackson, Tenn.: The water department inspector examines the fire hydrants once a year. Defects are reported to the superintendent, and he in turn has the necessary repairs taken care of.

G. Rehm, Chief, Mobile, Ala.: Fire hydrants are inspected by a regular inspector who is continually examining all hydrants. Our hydrants are painted each year. When defects are found, the inspector reports same to me and I in turn notify the superintendent of water works.

W. O. Drake, Chief, Corning, N. Y.: The water department has the hydrants inspected twice a year. Any repairs needed are taken care of immediately by that department.

Dan Miller, Chief, Metropolis, Ill.: We have a full paid man who inspects the hydrants every ninety days. Defects are reported to the water and light department and repairs are made at once.

W. O. Aldrich, Chief, Whitinsville, Mass.: Hydrants are inspected twice a year by the superintendent in the employ of the Whitin Machine Works. They have charge of the water works and all hydrants are blown off, and oiled regularly in order to see that they are in good working order. Repairs are attended to by them at once.

D. C. Fahy, Chief, Penns Grove, N. J.: The water company, in co-operation with a member of the fire department, has fire hydrants inspected annually. Repairs are made by the water company when needed, at the request of the mayor and the council.

Robt. H. Grant, Chief, Beverly, Mass.: Fire hydrants are taken care of by the commissioner of public works. Inspections are made two or three times a year. Defective hydrants are reported to the office of the commissioner. We have 582 hydrants which are all kept in working order by the department of public works.

W. T. Miller, Chief, Petersburg, Va.: The chief of fire department has charge of inspecting fire hydrants. This is done every three months. Anything in need of repair is reported at once to the water department and they see that it is taken care of immediately.

Lee Barr, Chief, Winchester, Va.: This city has a water inspector who, with the assistance of one helper, inspects the fire hydrants three or four times a year. Repairs are taken care of immediately and if necessary new hydrants are installed to replace old ones.

J. G. Neithammer, Chief, Reading, Pa.: Employees of the water department keep going around all the time to see that hydrants are in good working order. This inspection work is kept up all the time. The water department does all the repair work without delay. The hydrants are kept in good condition at all times.

Geo. Hoherd, Chief, Temple, Texas: Firemen inspect the fire hydrants every three months. The water works superintendent is notified of anything that is in need of repair.

Harry Whiteside, Chief, Beatrice, Neb.: While the fire department inspects the hydrants once a year, all repairs are taken care of by the water department.

Chas. Alt, Chief, St. Louis, Mo.: The water department inspects fire hydrants twice a year. Defective hydrants are reported to the water department and repairs are made immediately.

R. H. McMillan, Chief, Jacksonville, Fla.: Domestic hydrants are inspected by the water department and high pressure hydrants by the fire department. This work is done once or twice each year. However, the water department does all the repair work. The fire department pays the water department for all work done on the high pressure system. The fire department pays the water department thirty-five dollars each year for every domestic hydrant.

Fred J. Washburn, Chief, Auburn, N. Y.: The water department inspects all the hydrants at least once a year. They are greased and tested to see that they are in perfect condition. Repair work is taken care of by the water department.

M. S. Philip, Chief, Chicago Heights, Ill.: The water department inspects fire hydrants in the spring and fall of the year. As soon as defective hydrants are discovered, the water department has them repaired immediately.

Frank Colemeyer, Chief, Seymour, Ind.: Inspection work is carried on in the spring and fall by employees of the water company and members of the fire department. Repair work is done by the water company.

F. M. Russell, Chief, Albuquerque, N. Mex.: Fire hydrants are inspected by members of the fire department every six months. Defective hydrants are reported to the water department and repairs are made by them at once.

W. F. Noble, Chief, New Britain, Conn.: The water department inspects the fire hydrants twice a year. Defective hydrants are reported to the water department and taken care of by them.

Arthur M. Newton, Chief, East Chicago, Ind.: Inspection work is carried on by the water department in co-operation with members of the fire department. This work is done every month. Repairs are made by the water department.

Philip Partenheimer, Chief, Greenfield, Mass.: Fire hydrants are inspected in the fall and during the winter by the water department. They are also inspected immediately after they have been used at a fire. Repairs are taken care of by the water department.

W. A. Buel, Chief, Parsons, Kans.: The water department inspects fire hydrants four times a year. Defective hydrants are reported to the water department who has them repaired at once.

Julius Marker, Chief, Idaho Falls, Idaho: Fire hydrants are inspected every three months by the water department. Anything in need of repairs is reported to the water department at once.

C. E. Sears, Chief, Claremont, N. H.: The water works department takes care of all hydrants in the town. When repairs are needed the superintendent is notified.

Fred. Wiehagen, Chief, North Braddock, Pa.: The Pennsylvania Water Company inspects the fire hydrants. When we discover a defective hydrant, the superintendent is notified and a man is sent to repair it.

Jos. Fifarck, Chief, Traverse City, Mich.: The city water

There Is Plenty of Fuel at a Lumber Yard Fire

Five alarms were turned in to halt a fire that swept through two lumber yards in Philadelphia, Pa. The loss was estimated at $100,000. The illustration shows firemen washing down the charred piles of lumber.

department inspects all the hydrants twice a year. Repairs are taken care of by them just as soon as they are necessary.

Lee Elliott, Chief, Painesville, Ohio: The water department has charge of the inspecting of fire hydrants. Defective hydrants are repaired by the water department at once if possible. If beyond repair, a new hydrant is installed.

C. Grover Rech, Chief, Tonawanda, N. Y.: Fire hydrants are inspected every two months by the water department. All repairs are taken care of by them.

Walter T. Steinmetz, Chief, Alameda, Cal.: Members of the fire department inspect the hydrants about every six months. Defective hydrants are reported to the water company.

Chief of Fire Dept., Salida, Colo.: The Street Commissioner has charge of inspecting fire hydrants. This work is done once a year. Anything in need of repairs is reported to the Street Commissioner.

Frank Miller, Chief, Linden, N. J.: I certainly do consider over-insurance the real cause of incendiary fires. In my experience every incendiary fire had an excess amount of insurance involved in it. I am forever arguing with the local insurance agents to investigate property and insure it for only eighty per cent of the value. I believe that if all insurance companies could be made to follow this example there would be a smaller number of incendiary fires. When owners realize they cannot over-insure property and will have to suffer a certain loss, I am confident this will tend to reduce the suspicious fires to a minimum.

Earl B. Reeves, Chief, Fontana, Cal.: I am of the opinion that over-insurance is responsible for a great many incendiary fires. If insurance agents would make a thorough investigation of the buildings being insured and insure for eighty per cent instead of full valuation, and in many instances a great deal more, I am sure we would have less fires of this nature.

F. Dubois, Chief, Kenora, Ont., Canada: All our fire hydrants are painted a bright yellow with top and water outlets painted black. The nearest telephone or electric light pole to a hydrant has a wide red and white strip painted on it. This is a mark that can be seen a good distance away, either day or night. When it is possible, this marking is placed underneath a street light. If snow happens to pile up against the hydrant, the pole signal designates its location. All hydrants are specially marked on a map near to our bulletin board. This is done so that our men can become acquainted with their location and also the location of the fire alarm boxes.

All contracting work or other work, such as alterations or repairs to hydrants, is kept on record. During the winter months the water department assigns a man to work with this department by pumping out any hydrant used at a fire or for any other purpose. This man also renews packings in the packing chamber.

In the outlaying districts where hydrants are usually far apart, we find that our reverse couplings for hydrant connection saves time, and water is obtained very quickly. This is for use where the female coupling is first out on the hose on the truck. By attaching the reverse coupling where a fire is reached before the hydrant, valuable time is saved.

L. J. Lessinger, Chief, Nampa, Idaho: Our hydrants are painted red every year. However, they are not marked in any way to show the size of the main.

We are equipped so as to be able to lay lines either from the hydrant to the fire or the fire to the hydrant, the general practice being to lay one line from hydrant, siamesed into two 1½-inch leader lines. Then, if deemed advisable, two lines may be laid from any point to the nearest hydrant, and the pumper placed in position for immediate use.

The location of hydrants, size of mains, strong and weak hydrants, volume of water available, flowing pressure, etc., are an important part of our drill school and members are expected to acquire that knowledge.

F. C. Seibert, Chief, Houston, Tex.: Our hydrants are painted black with yellow tops but are not marked for the size of mains to which they are connected. We do not have to avoid any hydrants at fires.

Wm. H. Wayand, Chief, Scotia, N. Y.: Our hydrants are painted yellow with red tops and caps. We made this change about two years ago from a solid red. The main advantage of the new color scheme is that hydrants are easily seen at night. All of our hydrants are covered in the winter with round, wooden boxes painted red.

None of the hydrants are marked in any way. The mains vary from four to twelve inches, with a very small number of four-inch mains. We have a hydrant pressure of from sixty-five to eighty pounds.

The fact that members are required to know the locations of hydrants, pressures, etc., makes it possible for us to know which hydrant to use at a fire.

Jos. Nohowec, Chief, Mineola, N. Y.: Alarms received from rural or neighboring communities are considered outside calls. If the chief of one of these communities calls up and asks for help, we answer the call. However, if summoned by a citizen, the call is not answered.

No charge is made for service rendered. There is an agreement among the chiefs that if help is needed, the alarm is answered without charge.

Attractive House Opened in Mishawaka

Fire Station No. 4, an attractive building recently completed, has been placed in service in Mishawaka, Ind. It is of English type architecture and was erected at a cost of $22,000. On the first floor are the apparatus room, captain's room, kitchenette, lounging room and a store room. The second floor is for the dormitory, recreation room, dressing room, bath room and another storage room.

The building exterior is constructed of pressed faced brick with steel sashed windows that are pivoted to swing outward. The roof is of slate with copper gables.

The walls are of sand finished plaster and a wainscoting of glazed brick. Approved metal lath is used throughout. All woodwork is finished a natural oak. The floors are of Italian mosaic. The kitchenette is equipped with the latest combination range, sink and cabinet. The lounging room has a card table and chairs of rustic hickory design. The dormitory and dressing room floor is covered with battleship linoleum. The hose tower is concealed but is easily accessible.

Fire House Recently Completed in Mishawaka, Ind.

The station is erected in a beautiful residential district. Six men working on the twenty-four-hour shift are assigned to Station No. 4.

Harrisburg Firemen Complete Tour

The Friendship Fire Company of Harrisburg, Pa., completed a bus tour which brought them to several cities in Pennsylvania and New York. Special busses were chartered for the trip. The fifty-two firemen who made this trip were accompanied by a twelve-piece band.

The tour included Huntington, Tyrone, Altoona, and Etna, Pa., Niagara Falls, Hamilton, Ont., Canada Buffalo, Watkins Glens and Elmira, N. Y., and Williamsport, Pa. The firemen had a most enjoyable time. Special provisions for their entertainment were provided at Etna, Pa., Buffalo, Niagara Falls and Elmira, N. Y., by the chiefs of the respective fire departments.

South Bend, Ind., to Erect Fire House—A fire station costing $45,000 will be erected in South Bend, Ind.

Lowville, N. Y., to Buy Apparatus—Farmers in the vicinity of Lowville, N. Y., will purchase apparatus for rural protection.

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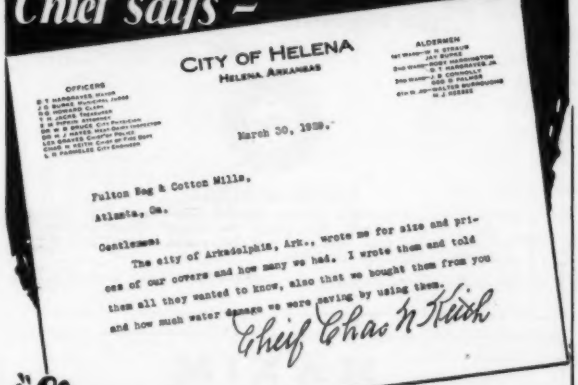

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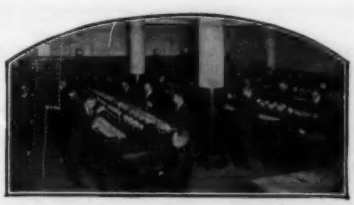

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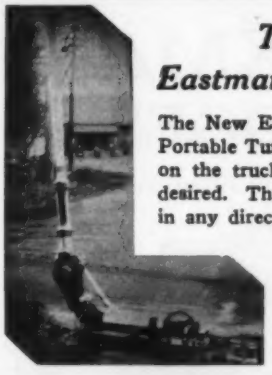

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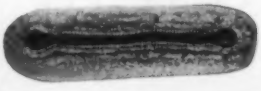

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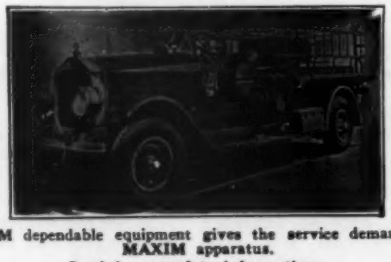

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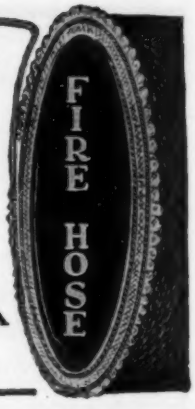

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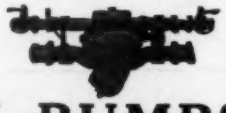

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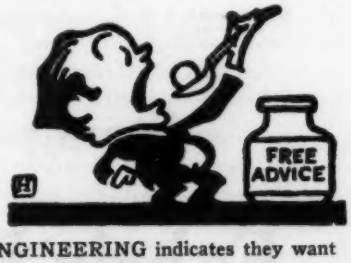
McDonald Engineering Co.	873
National Foam System, Inc.	873
National Marine Lamp Co.	874
National Standard Threadless Coupling Corp.	880
Northern Pump Co.	874
Pirsch & Sons Co., Peter	*Inside Back Cover*
Quaker City Rubber Co.	874
Rensselaer Valve Co.	880
Stanley & Patterson, Inc.	843
Sterling Siren Fire Alarm Co.	847
Union Water Meter Co.	880
Waterous Company	880
Waukesha Motor Co.	*Inside Front Cover*
Wood & Co., R. D.	874
Woodhouse Mfg. Co.	878

When Ordering New Epuipment



Patronize the Manufacturers You Find Listed Above

They are leaders in their respective lines and are in position to take the best possible care of your requirements.

The fact that they are using advertising space in FIRE ENGINEERING indicates they want your inquiries and will be glad to submit specifications and prices without placing you under any obligations whatever.

They are ready and anxious to serve you courteously in every way possible. Be sure to write them for complete information when considering new purchases—and place your orders with them.

They are helping us make the paper better by their advertising. You can help them and help us and help yourself by giving them your business. Let's all pull together! All will benefit.

The Publishers

When Buying Fire Hose

Read
What we
Have to
Say—

then—

Listen to
What others
Have to
Say—

then—

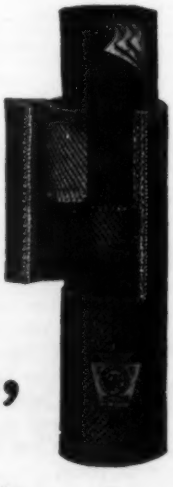
Do Your Own Thinking

WHEN you buy fire hose it isn't enough to know what the materials are. You have to know more if you want to buy efficiently and avoid the necessity of frequent repeat orders.

Here are the things you ought to know—

What is the exact quality of the materials used; and
How are these materials **combined** to make the hose?

Fabric Wax and Para Gum Treated, Cemented or Loose Inner Tube Fire Hose will not only stand the closest possible inspection inside and out, but we even go out of our way to explain to hose buyers exactly how it is made. Its many points of superiority, important points that you ought to know, are explained in an illustrated booklet which we will gladly send you on request.

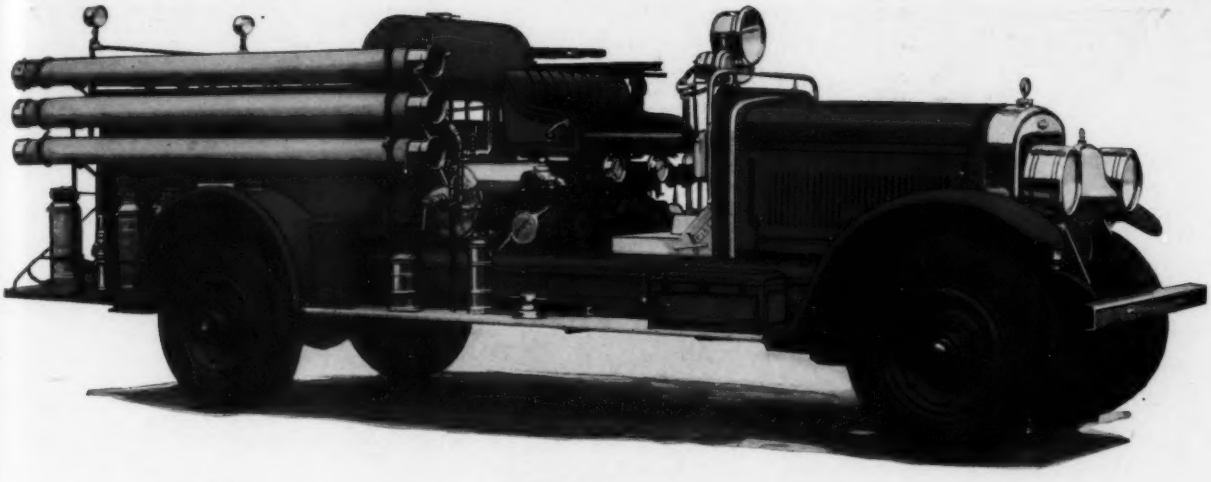


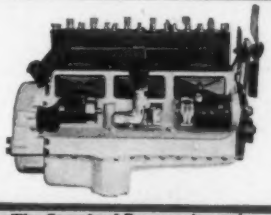
Stands Every Test

Fabric Fire Hose Co.,

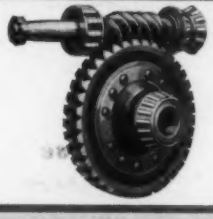
9-15 Park Place, New York, N. Y.
124-126 W. Lake Street, Chicago

Atlanta	Dallas	Minneapolis	Los Angeles
Boston	Binghamton	Portland	Newark
Columbus	Baltimore	San Francisco	Pittsburgh

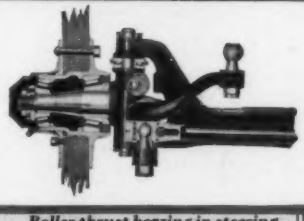




The Standard Pumper is equipped with this sturdy 105 H.P. 6 cylinder motor.



Sturdy Timken worm gear drive mounted in roller bearings.



Roller thrust bearing in steering knuckle insures easy handling of all Pirsch machines.

PIRSCH
EST 1857

A PRODUCT OF EXPERIENCE

THE MODERN fire engine is a product of experience. It must have a high degree of efficiency and inbuilt stamina. Specialized effort and long experience are essential in building fire fighting apparatus to meet modern needs.

This organization is the result of more than seventy years successful manufacturing experience. Pirsch Fire Engines, Ladder Trucks and other apparatus incorporate time tested features that insure the utmost in efficiency, adaptability and long life.

Every part used in Pirsch machines is at least 25% oversize. There is ample margin for every emergency. Pumping at full capacity for hours at a time—sustained high speed and all excess loads are provided for in the design and construction of Pirsch apparatus.

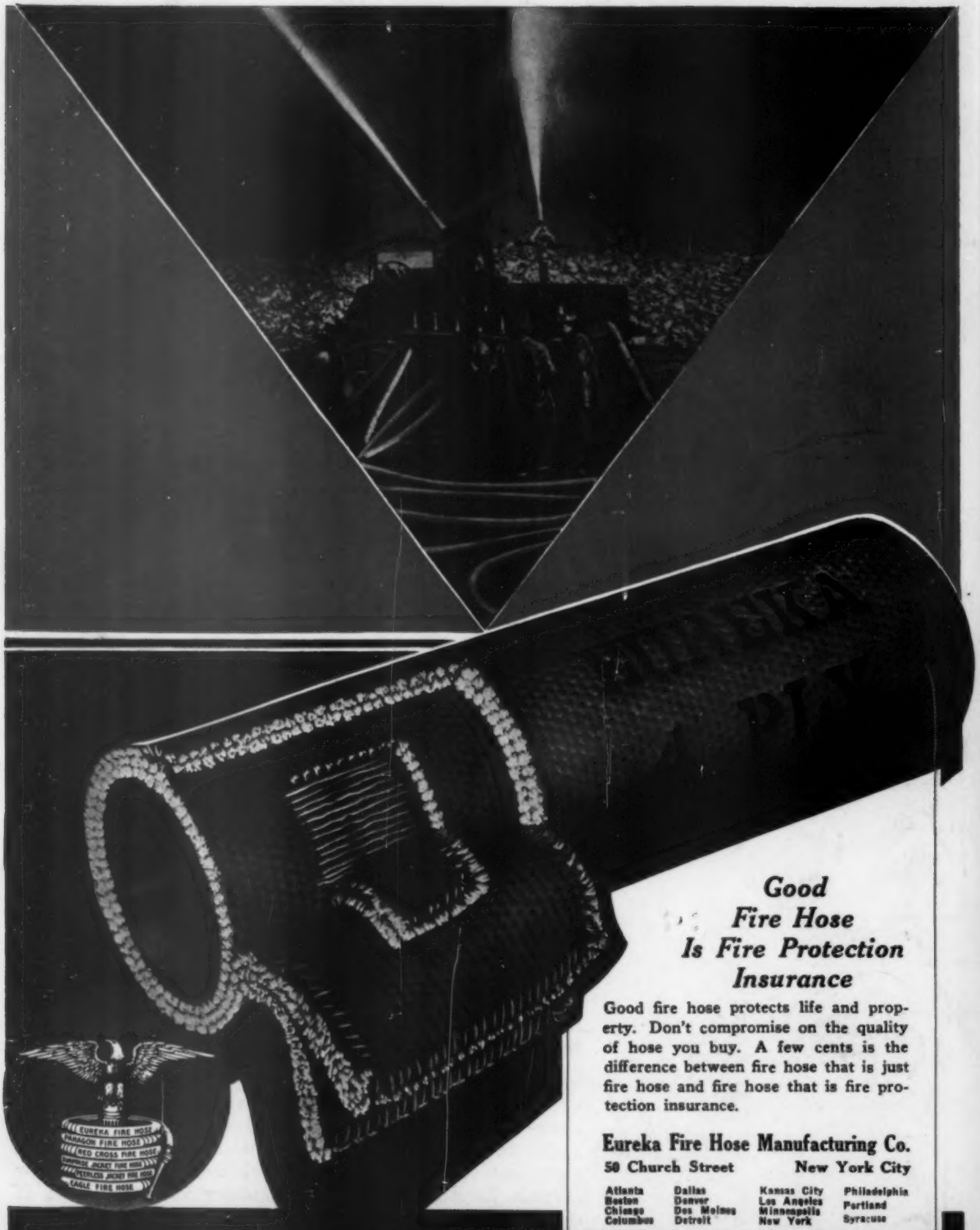
Pirsch Fire Engines are built to meet the needs of any community, large or small. They carry full approval of the Underwriters laboratories. The Standard, 750 Gallon Pumper is illustrated above.

When you buy Pirsch Fire Engines you get certain exclusive features: Pirsch Patented Trussed Ladders—Pirsch Patented Folding Ladders—Pirsch Patented Shut Off and Door Opener are standard equipment on all Pirsch Machines. Also the new Pirsch Lapless Extension Ladder may be had if desired. Full information will be mailed on request.

PETER PIRSCH & SONS CO.

Factory and Home Office
Kenosha, Wis.

Eastern Office
5 Beekman St., New York, N. Y.



Good Fire Hose Is Fire Protection Insurance

Good fire hose protects life and property. Don't compromise on the quality of hose you buy. A few cents is the difference between fire hose that is just fire hose and fire hose that is fire protection insurance.

Eureka Fire Hose Manufacturing Co.

50 Church Street **New York City**

Atlanta	Dallas	Kansas City	Philadelphia
Boston	Denver	Los Angeles	Portland
Chicago	Des Moines	Minneapolis	Syracuse
Columbus	Detroit	New York	

EUREKA FIRE HOSE